

Ad5			Ad5			ts149			ts149			°C MOI
37	5		39.5	5		37	5		39.5	5		
10	1	0.1	10	1	0.1	10	1	0.1	10	1	0.1	μl



Figure 1

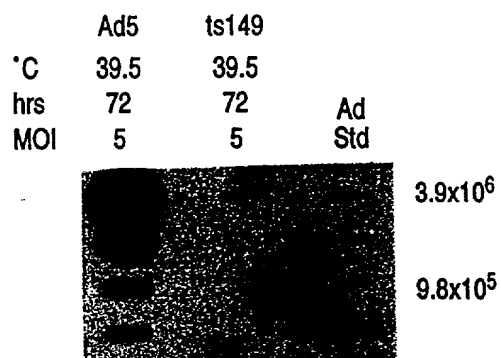
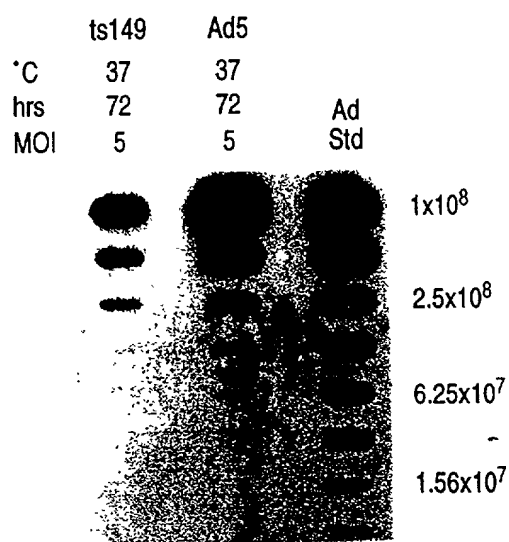


Figure 2

ts149				Ad5	ts149		°C hrs MOI
39.5				37	39.5		
72					72	96	
5 10 20 40					5	5	

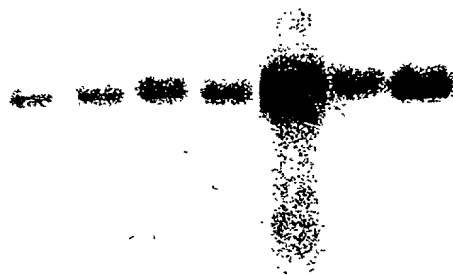


Figure 3

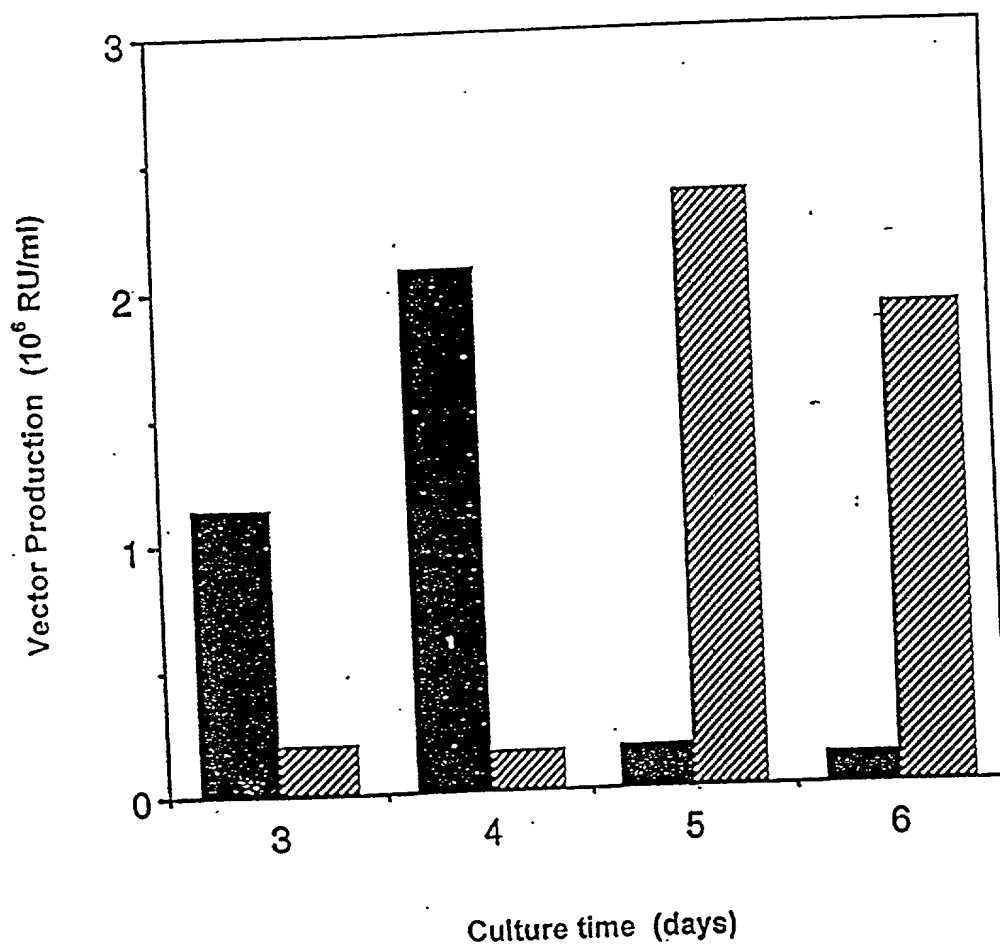


Figure 4

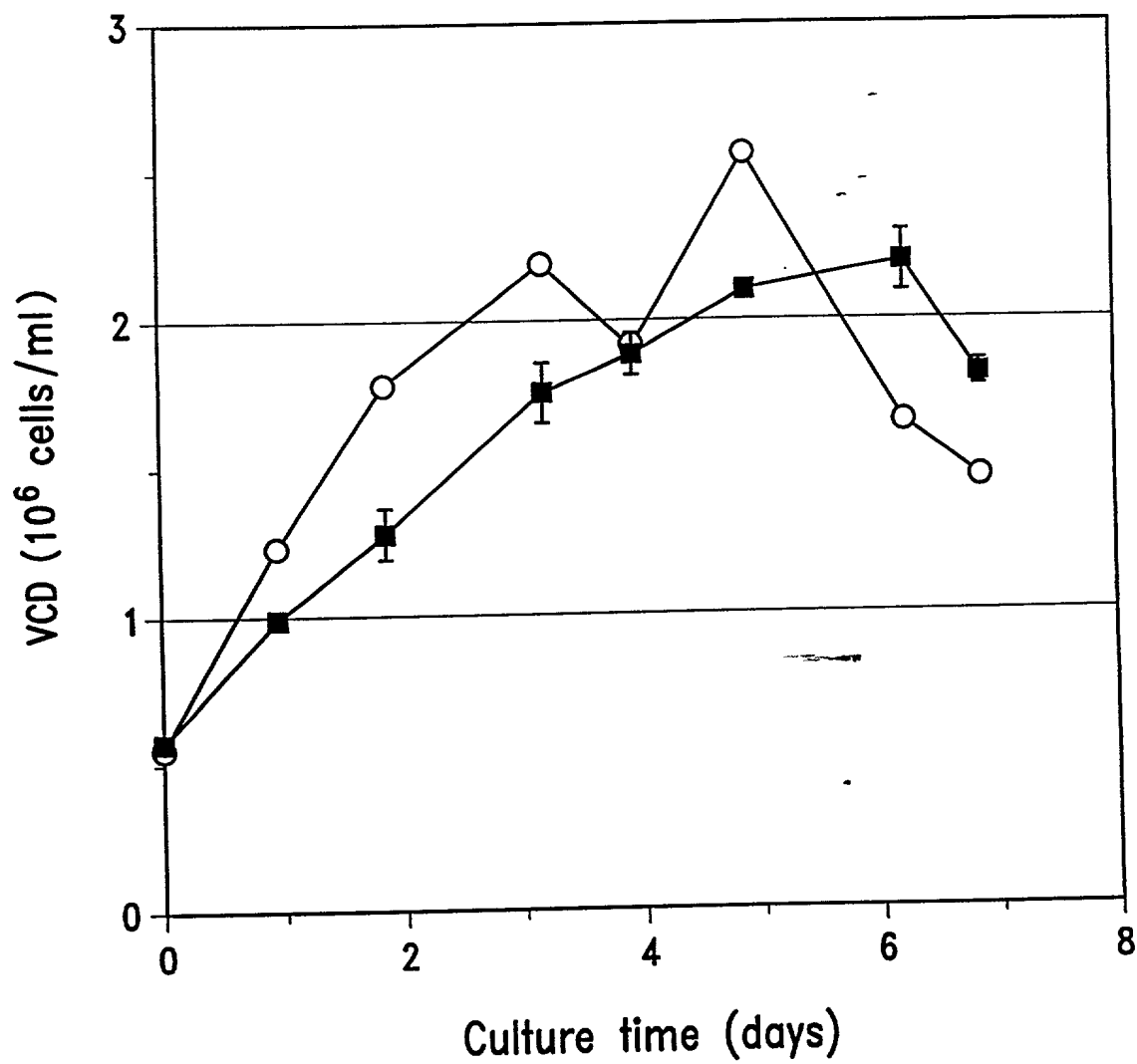


Figure 5

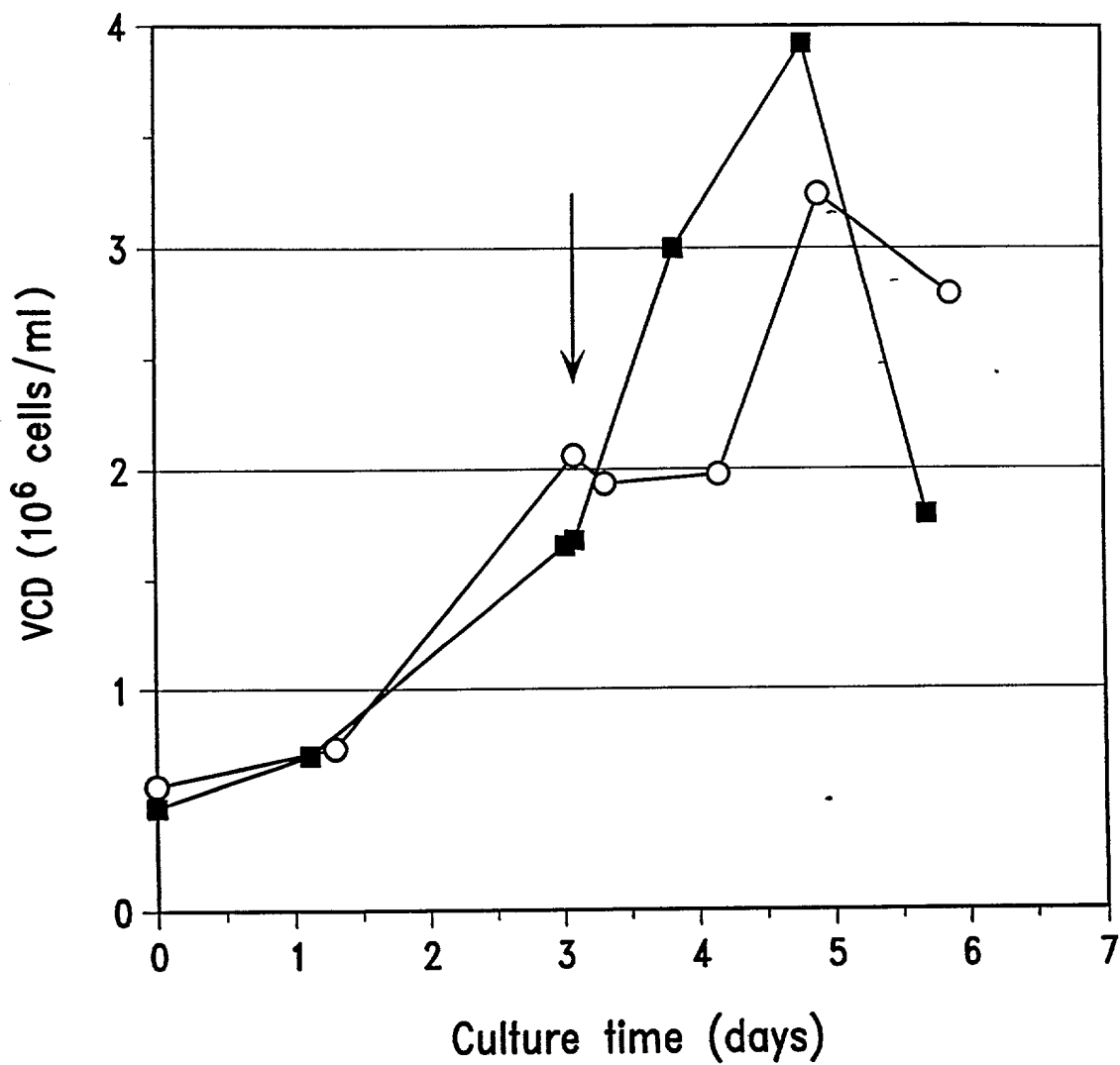


Figure 6

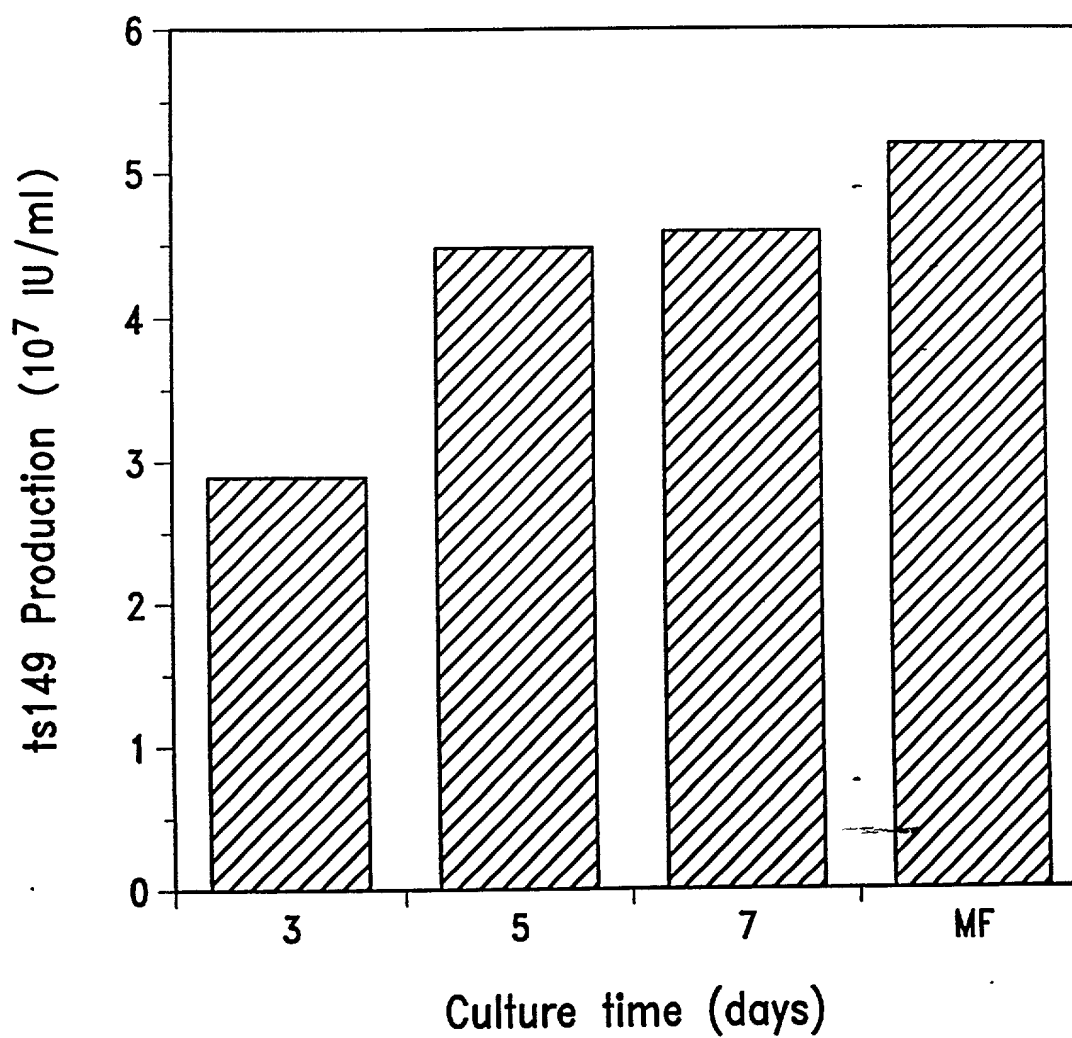


Figure 7

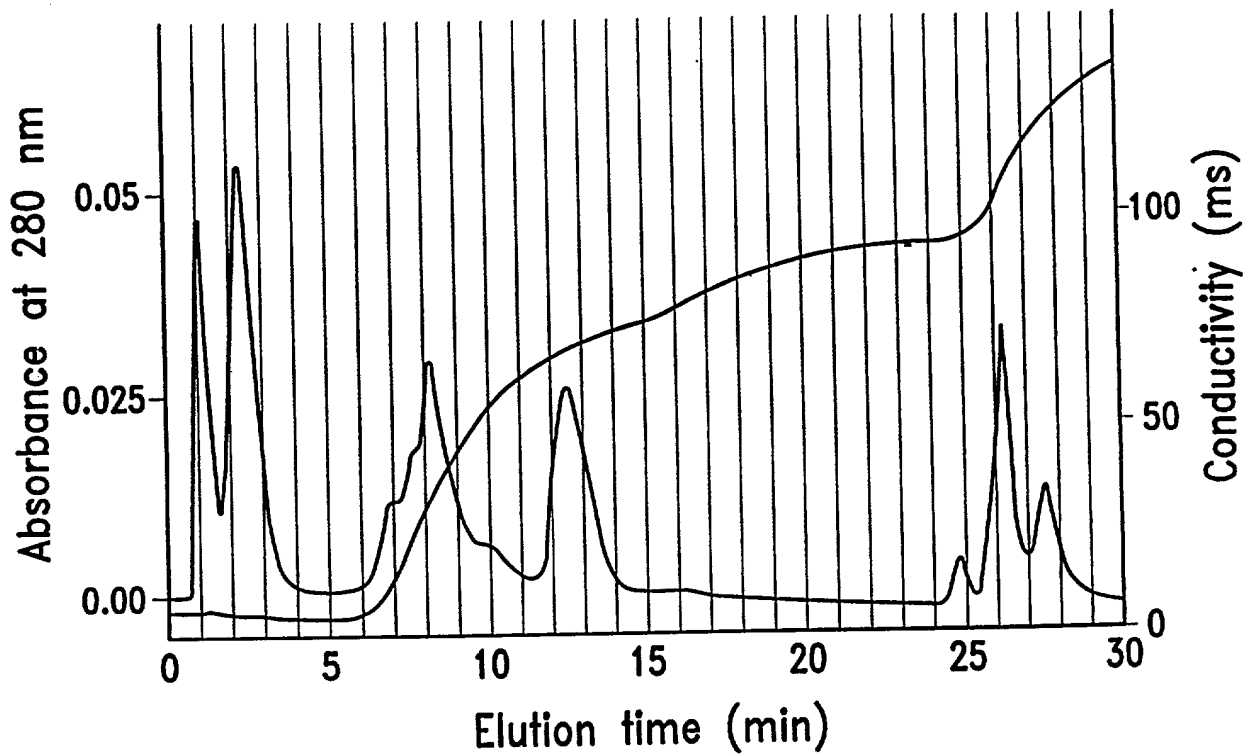
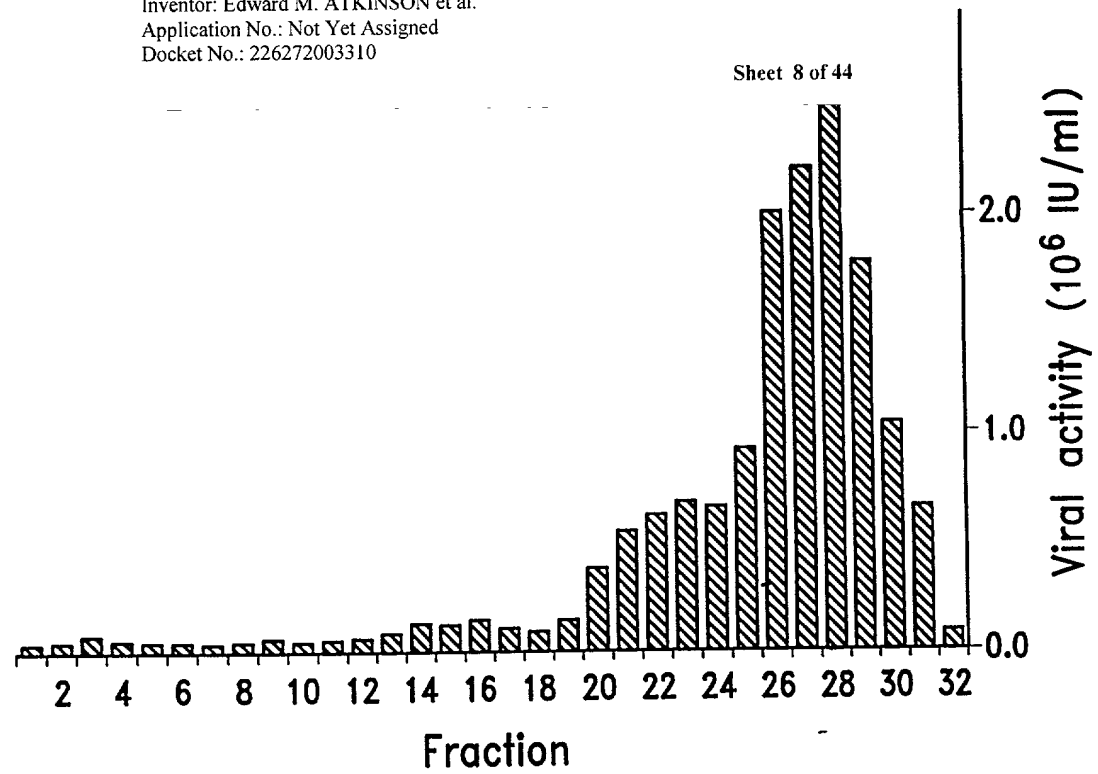


Figure 8

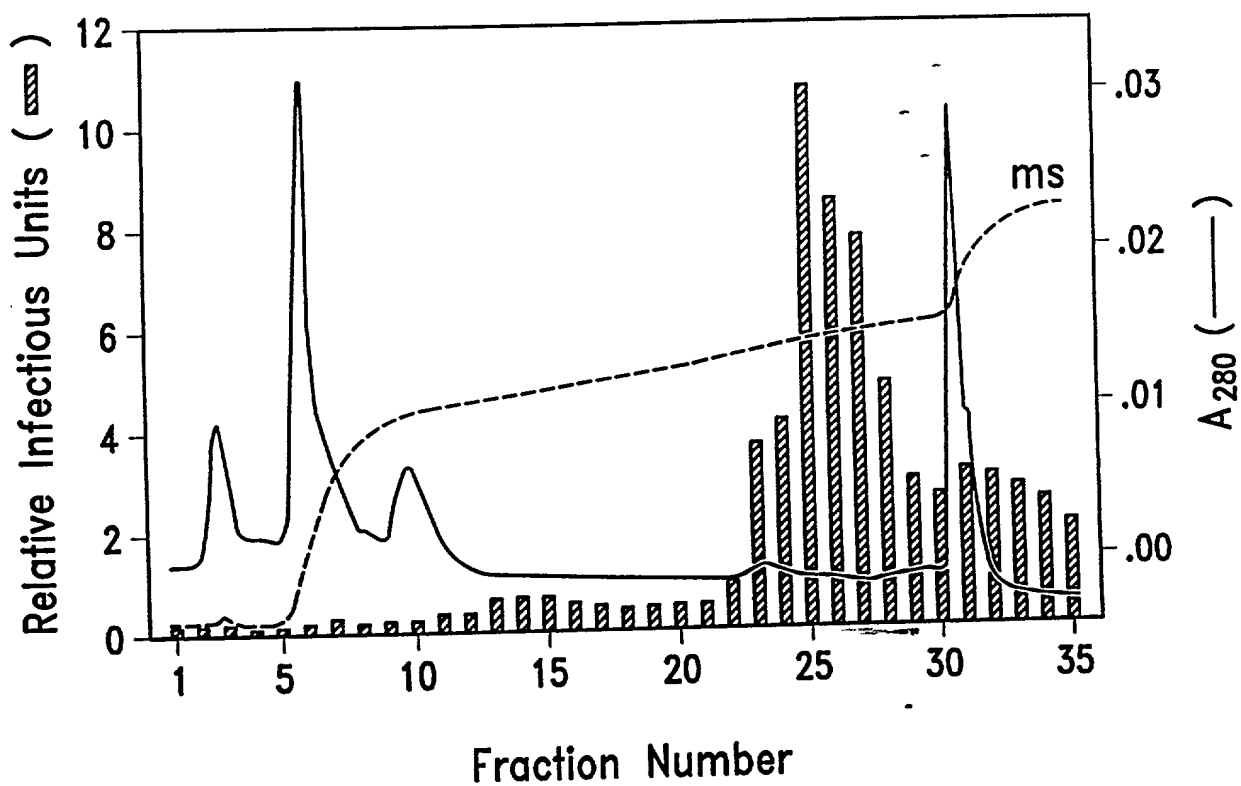


Figure 9

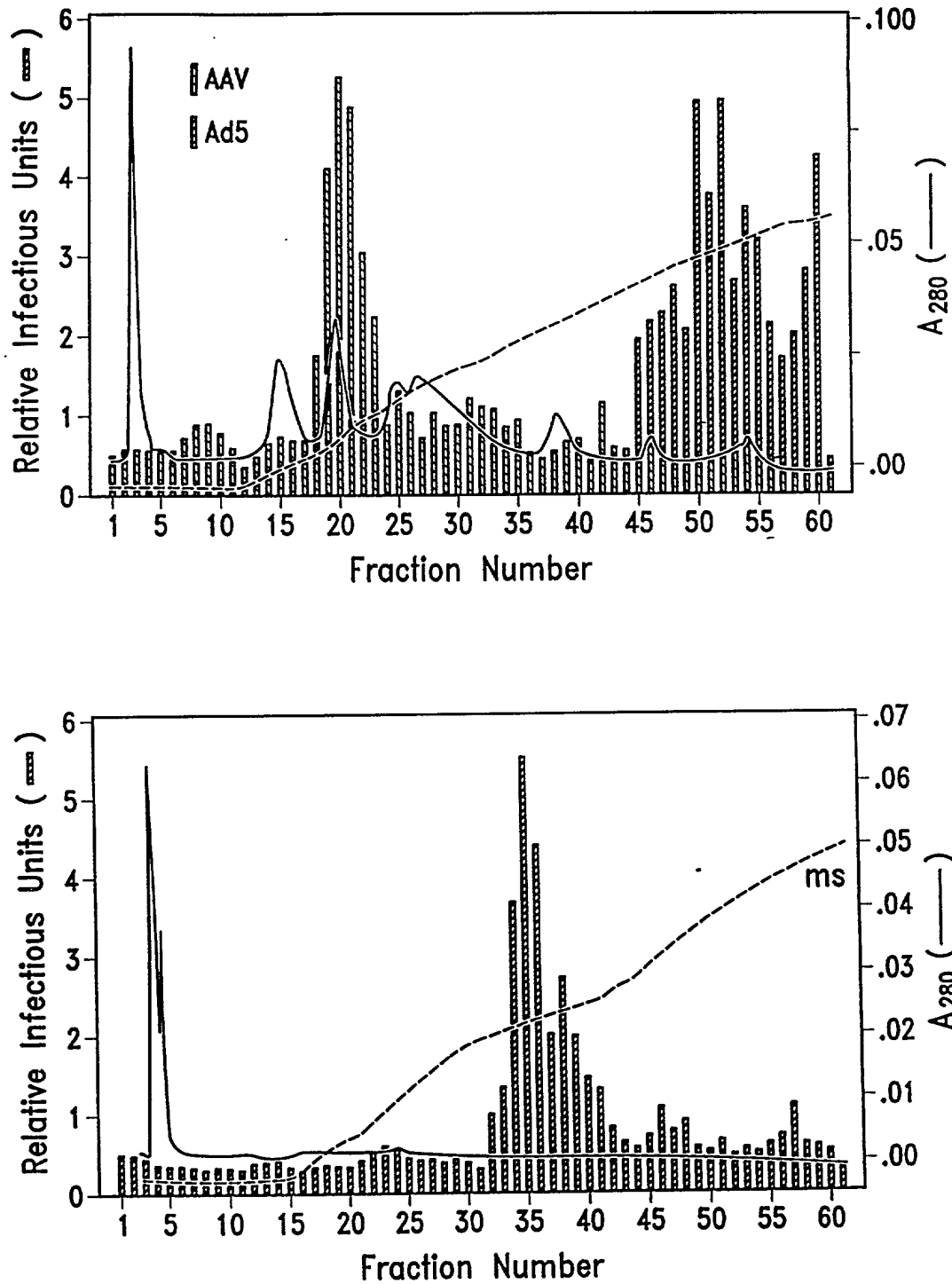


Figure 10

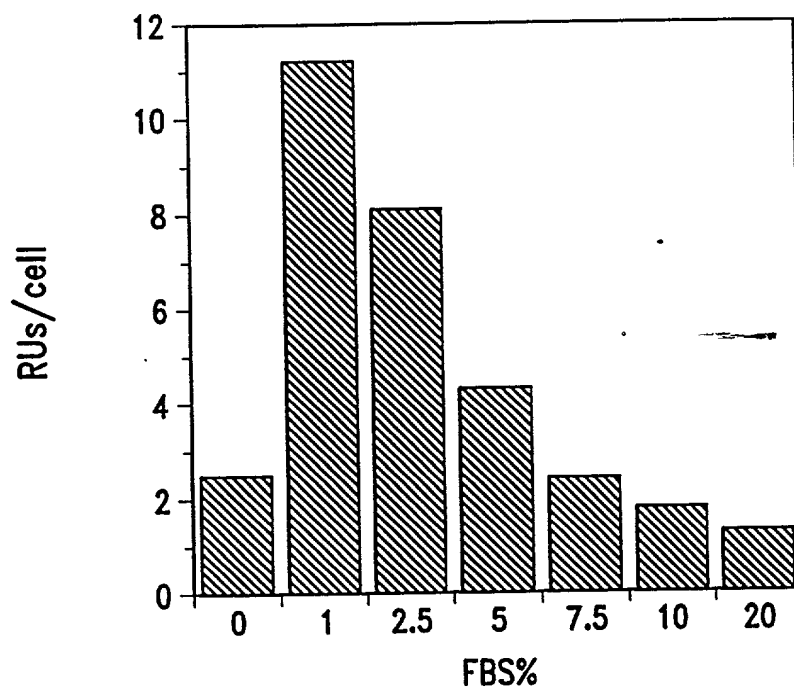
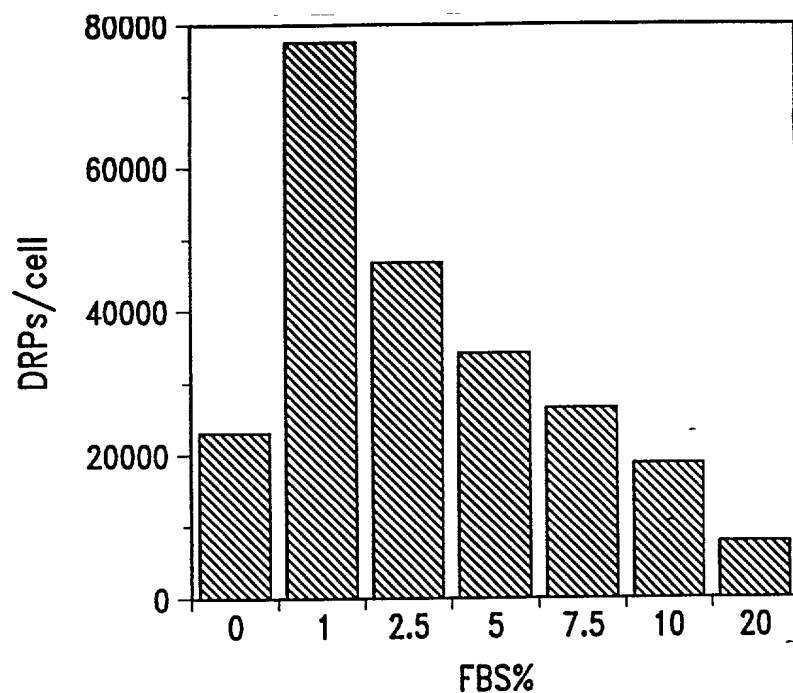


Figure 11

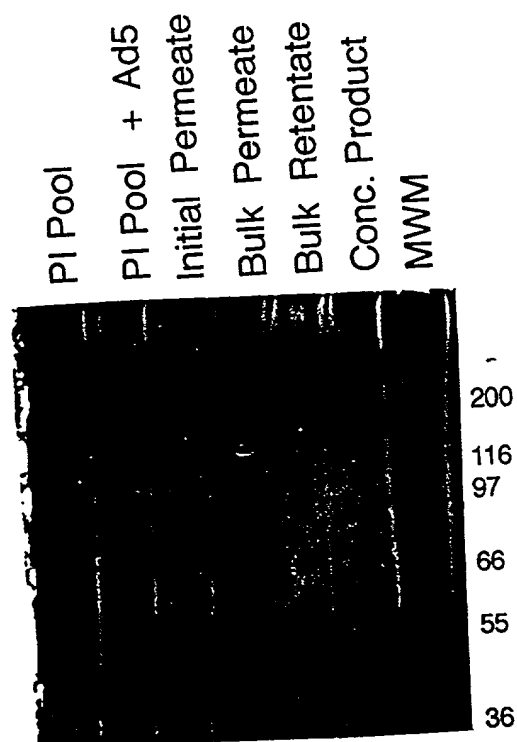


Figure 12

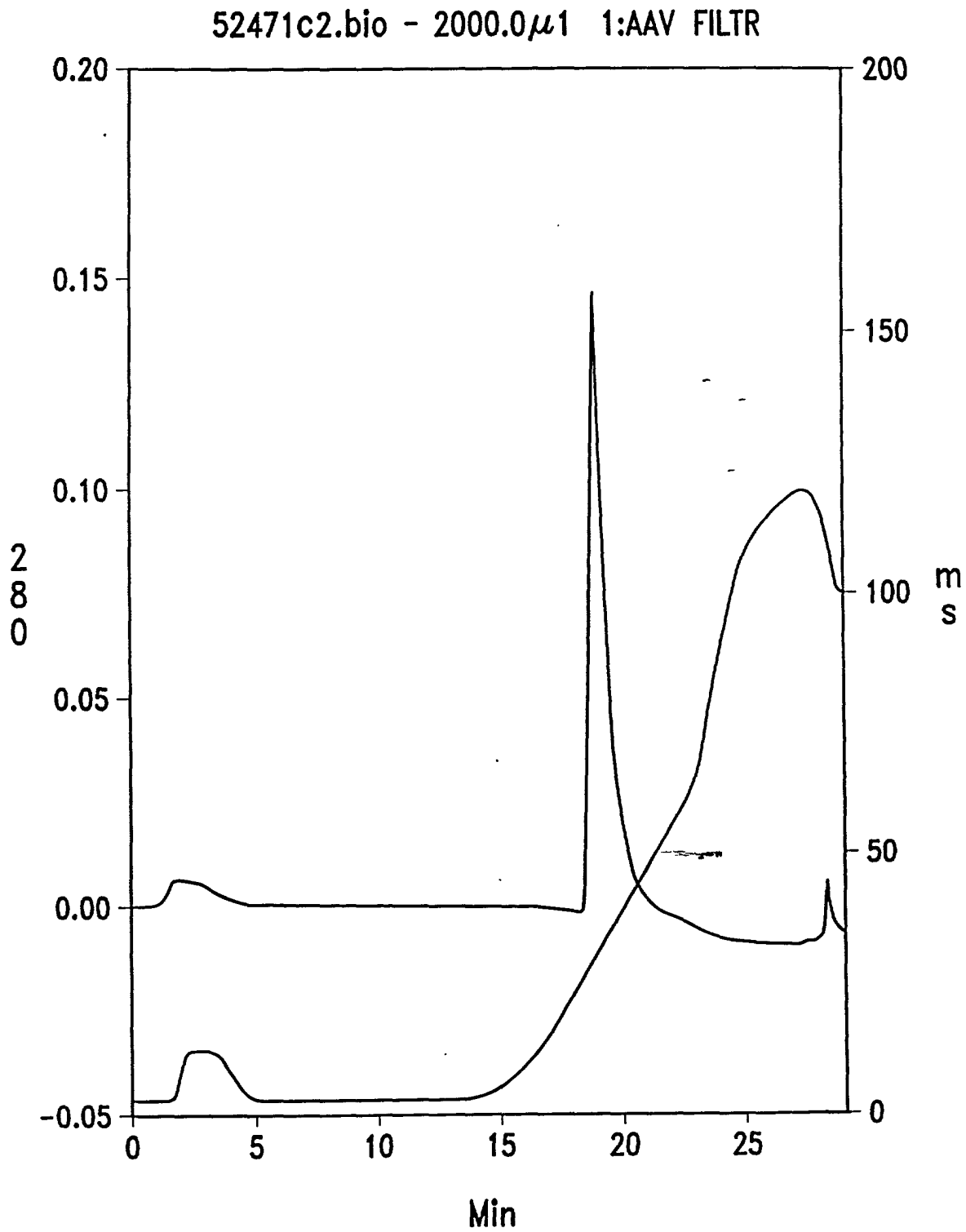
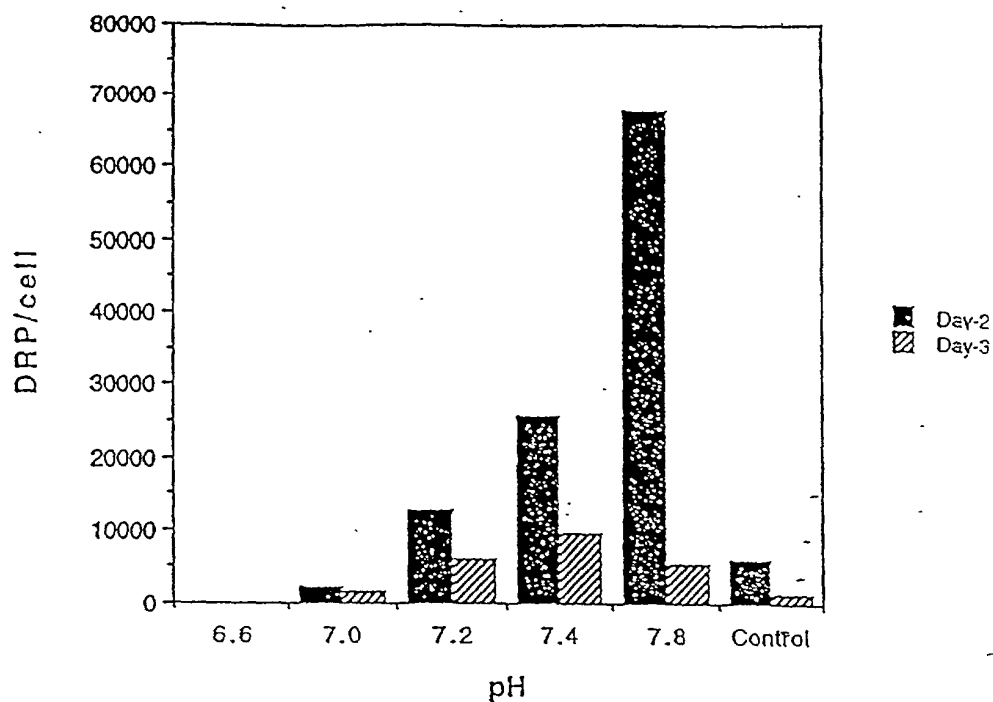


Figure 13

A

pH Experiment #1
 DRP Production at different pH's



B

pH Experiment #2
 DRP/cell at different pH's

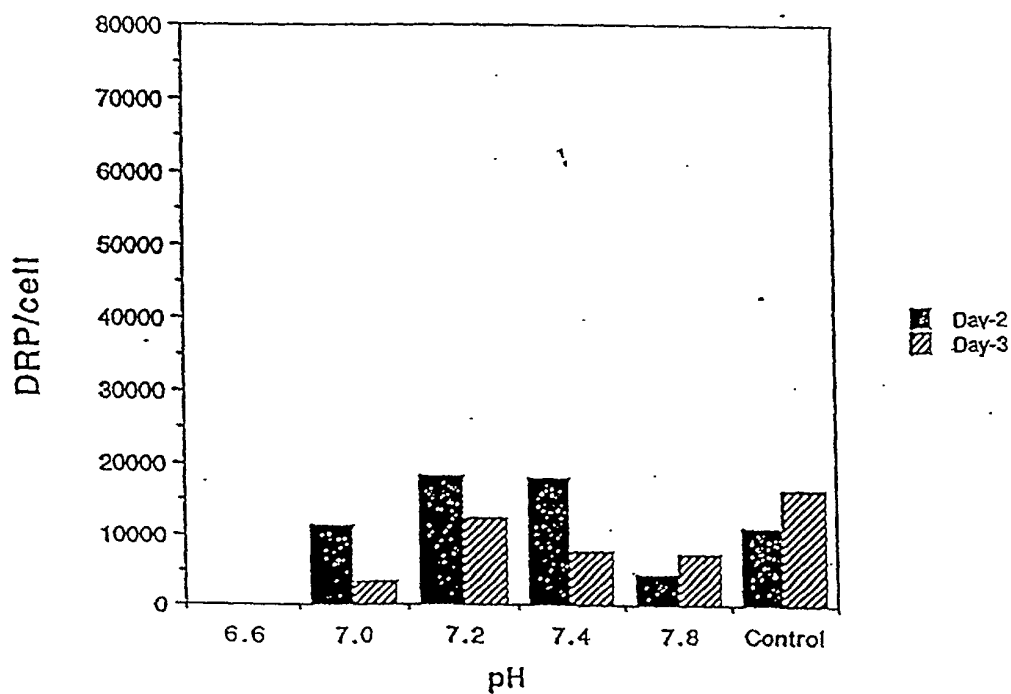
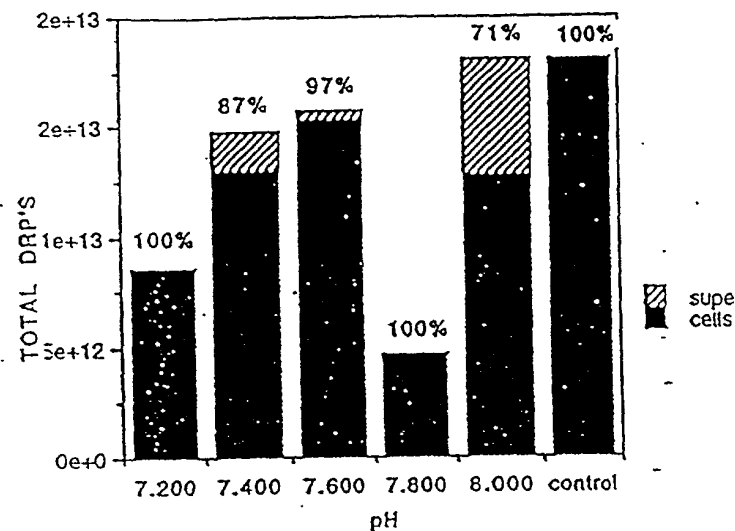


Figure 14

A

CFTR JL-14 REACTOR pH EXPERIMENT #3
 DISTRIBUTION OF VECTOR IN CELLS/SUPE
 TOTAL CULTURE DRP'S DAY 2



B

CFTR JL-14 REACTOR pH EXPERIMENT #3
 DISTRIBUTION OF VECTOR IN CELLS/SUPE
 TOTAL CULTURE DRP'S DAY 3

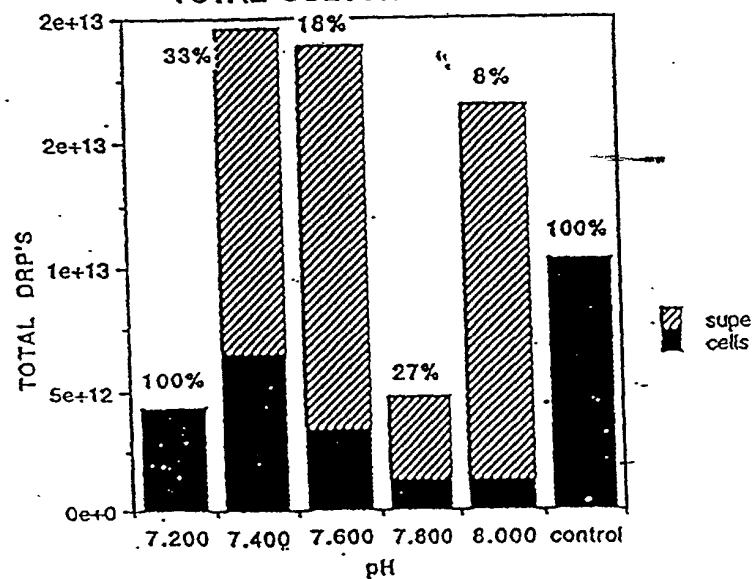
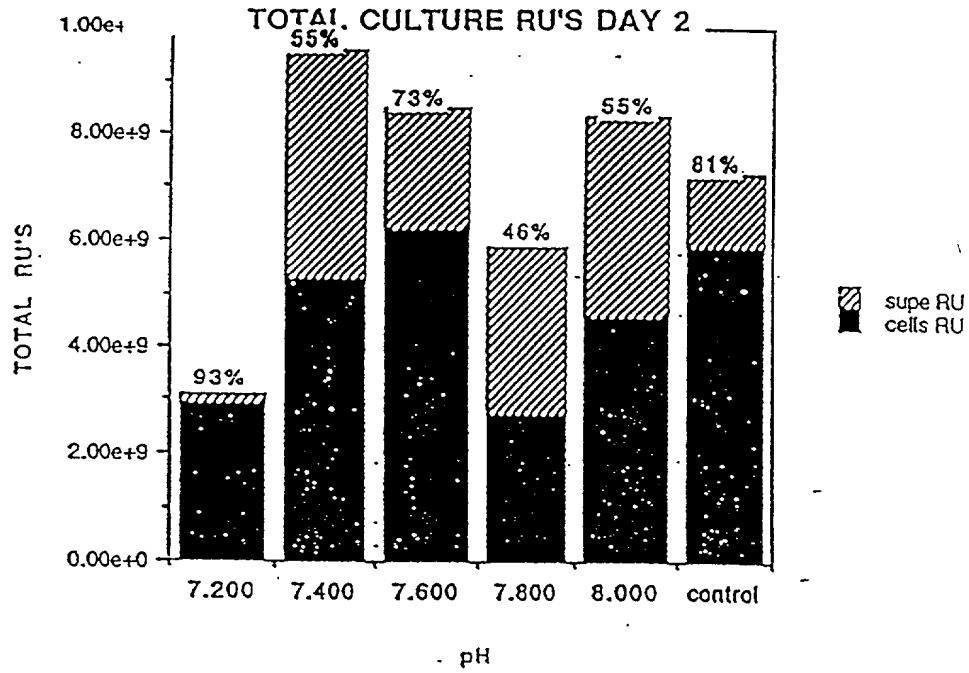


Figure 15

A
 CFTR JL-14 REACTOR pH EXPERIMENT #3
 DISTRIBUTION OF VECTOR IN CELLS/SUPE



B
 CFTR JL-14 REACTOR pH EXPERIMENT #3
 DISTRIBUTION OF VECTOR IN CELLS/SUPE

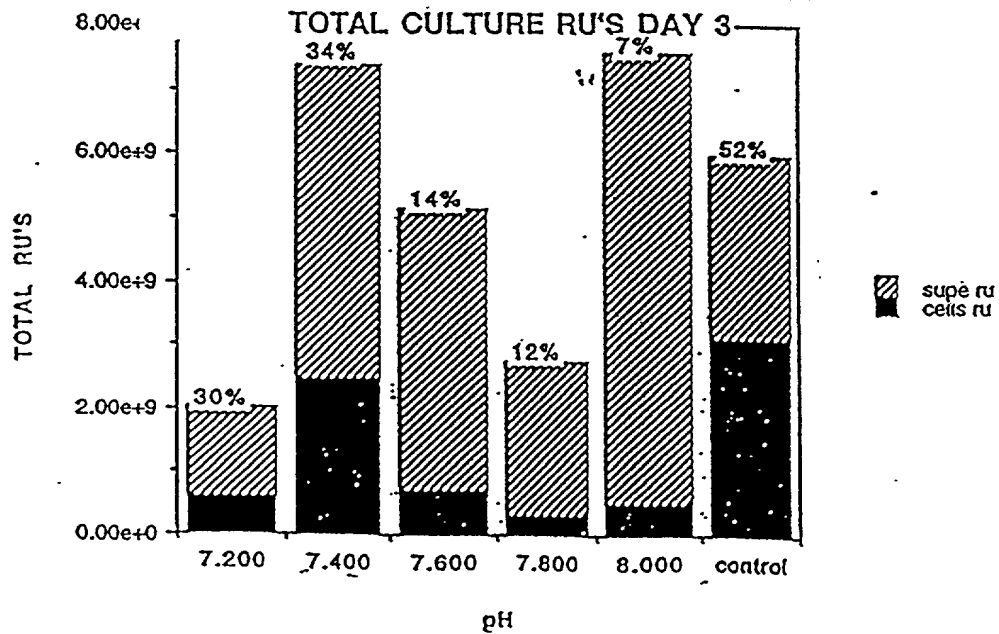


Figure 16

CFTR JL-14 REACTOR pH EXPERIMENT #3
DAY 3 PARTICLE TO INFECTIVITY
SUPERNATANT AND CELLS

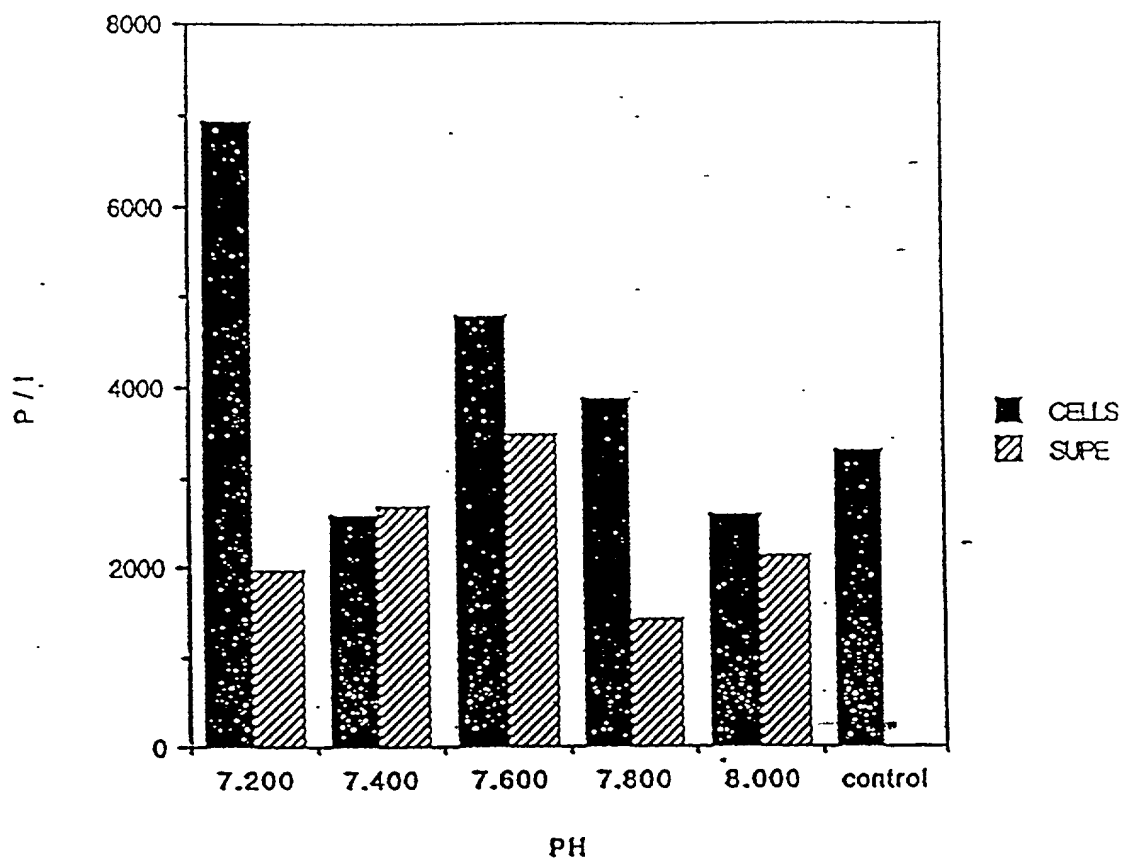


Figure 17

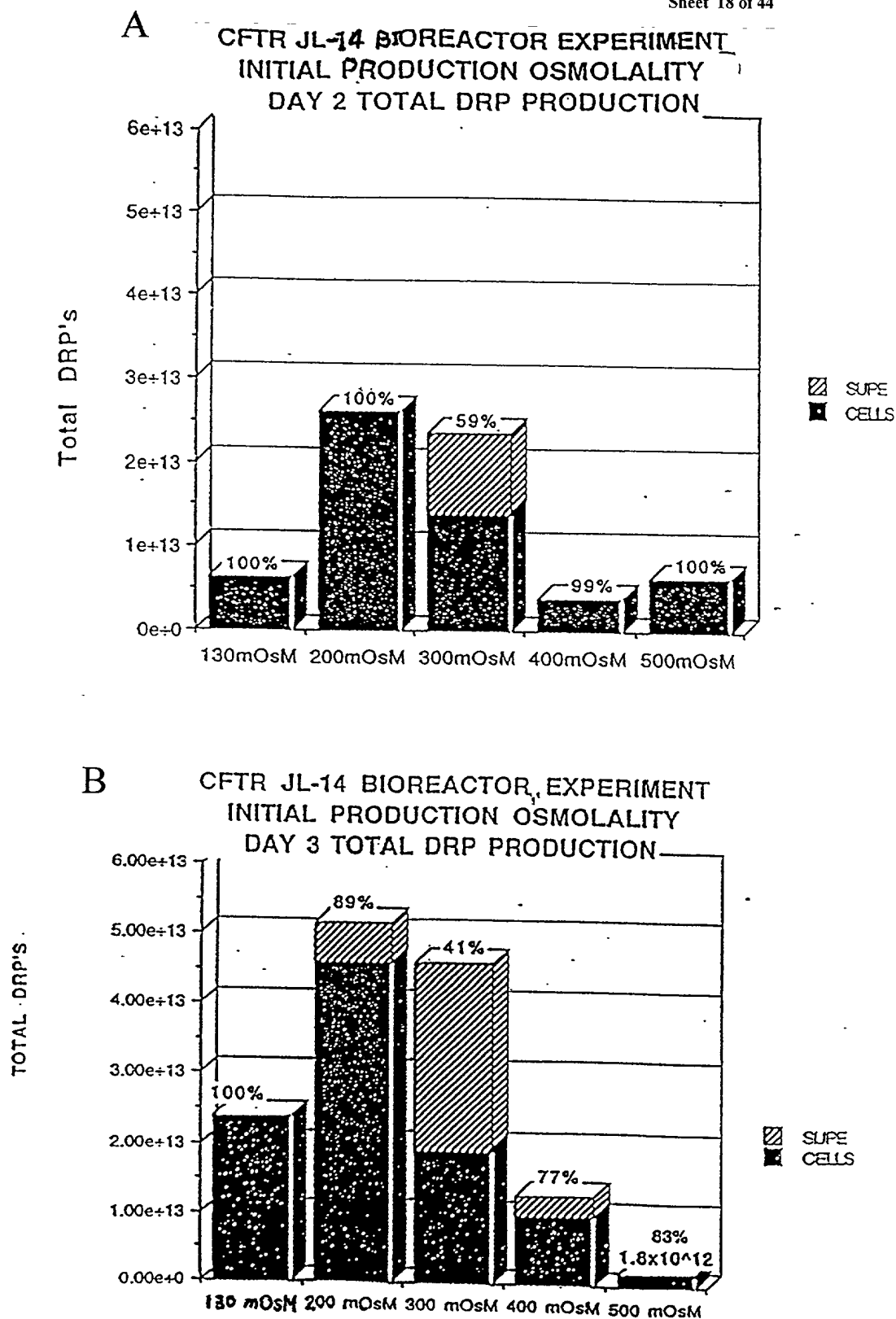


Figure 18

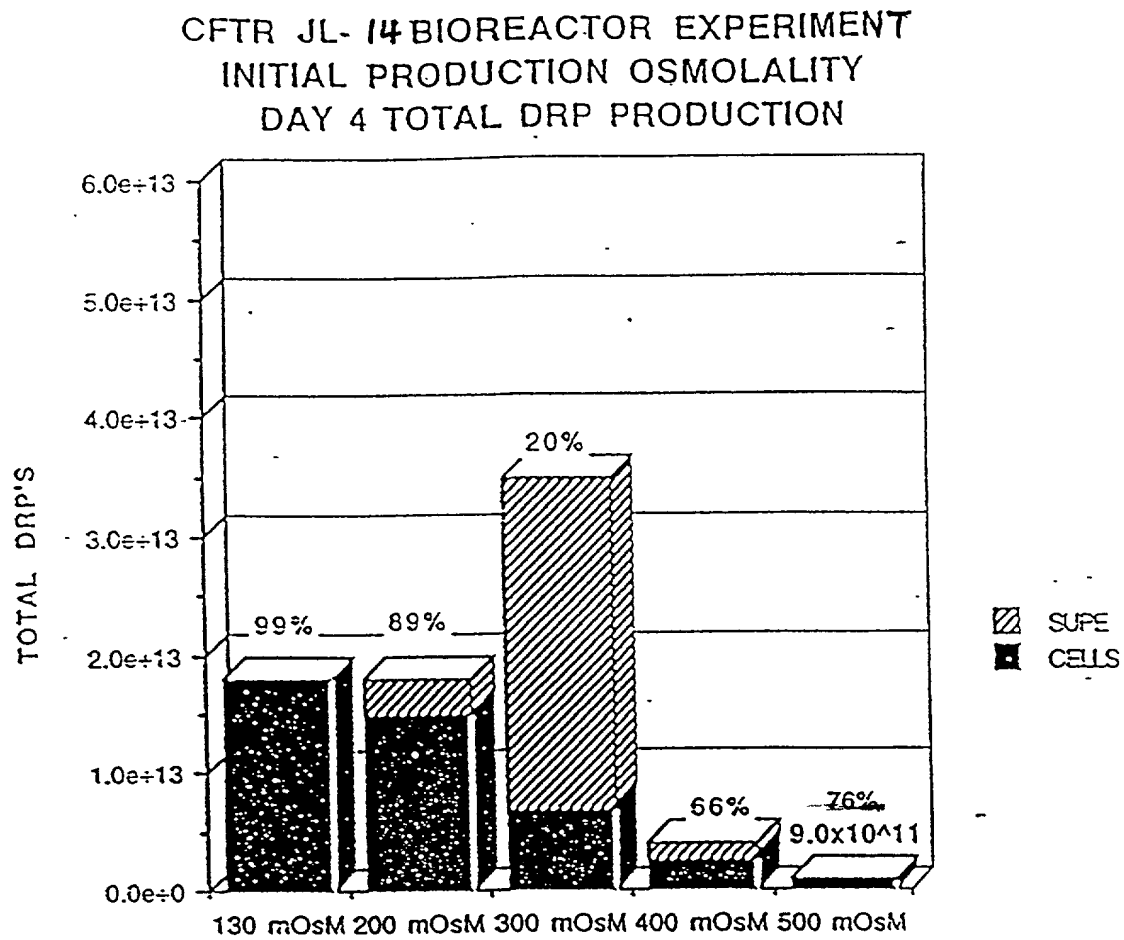
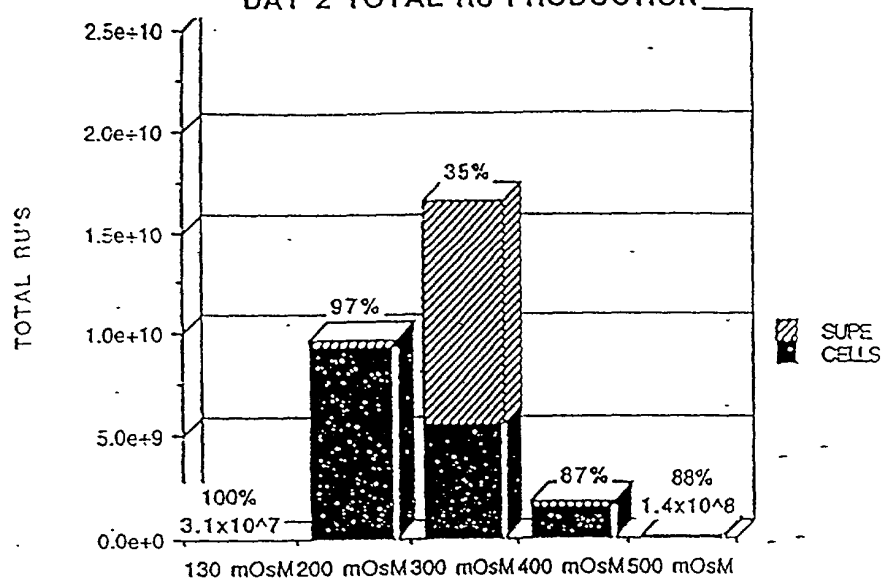


Figure 18C

A CFTR JL-14 BIOREACTOR EXPERIMENT
 INITIAL PRODUCTION OSMOLALITY
 DAY 2 TOTAL RU PRODUCTION



B CFTR JL-14 BIOREACTOR EXPERIMENT
 INITIAL PRODUCTION OSMOLALITY
 DAY 3 TOTAL RU PRODUCTION

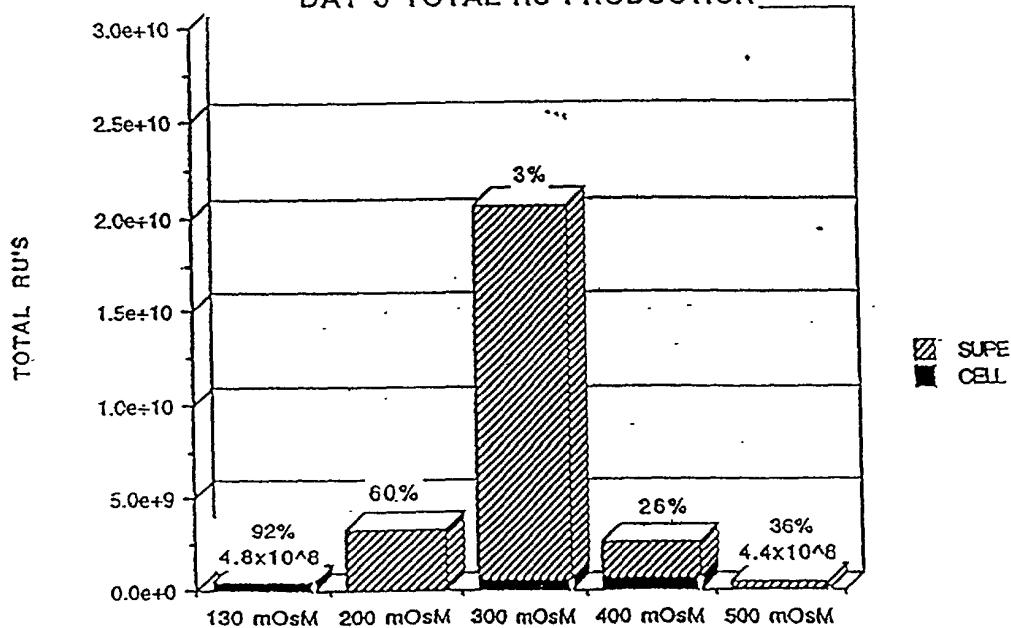


Figure 19

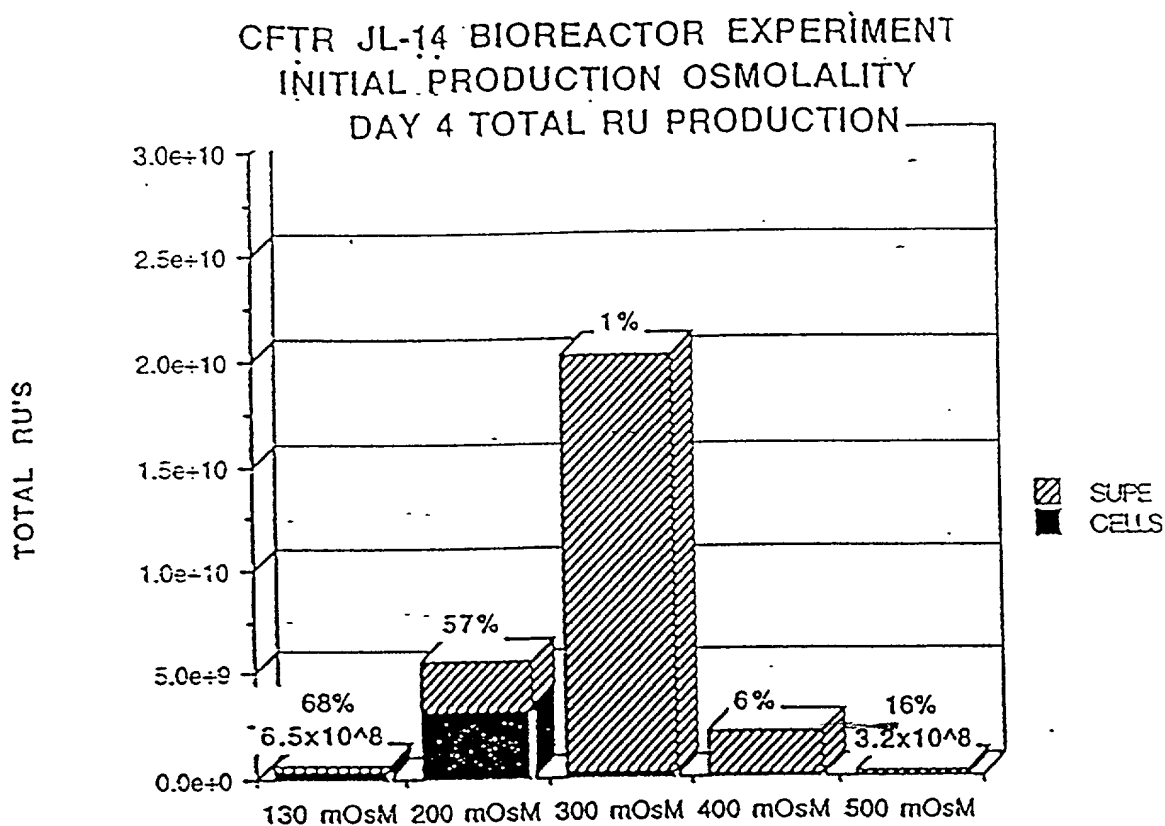


Figure 19C

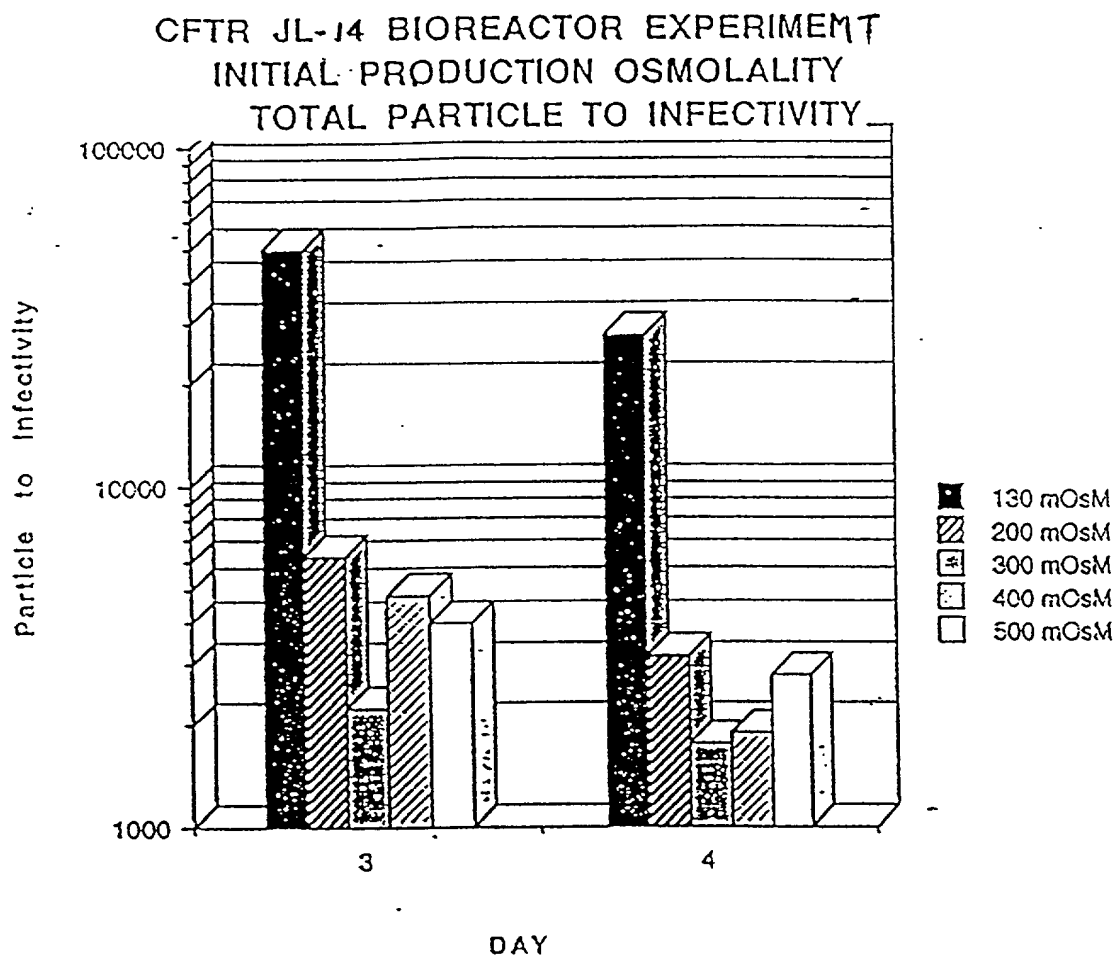
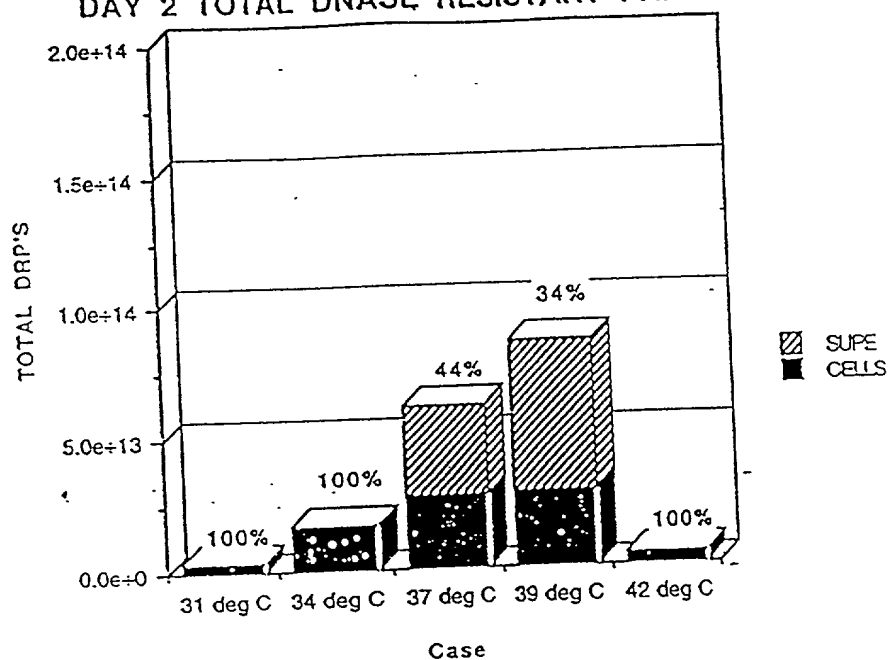


Figure 20

A
 CFTR JL-14 REACTOR EXP. TEMPERATURE
 DAY 2 TOTAL DNASE RESISTANT PARTICLES



B
 CFTR JL-14 REACTOR EXP. TEMPERATURE
 DAY 3 TOTAL DNASE RESISTANT PARTICLES

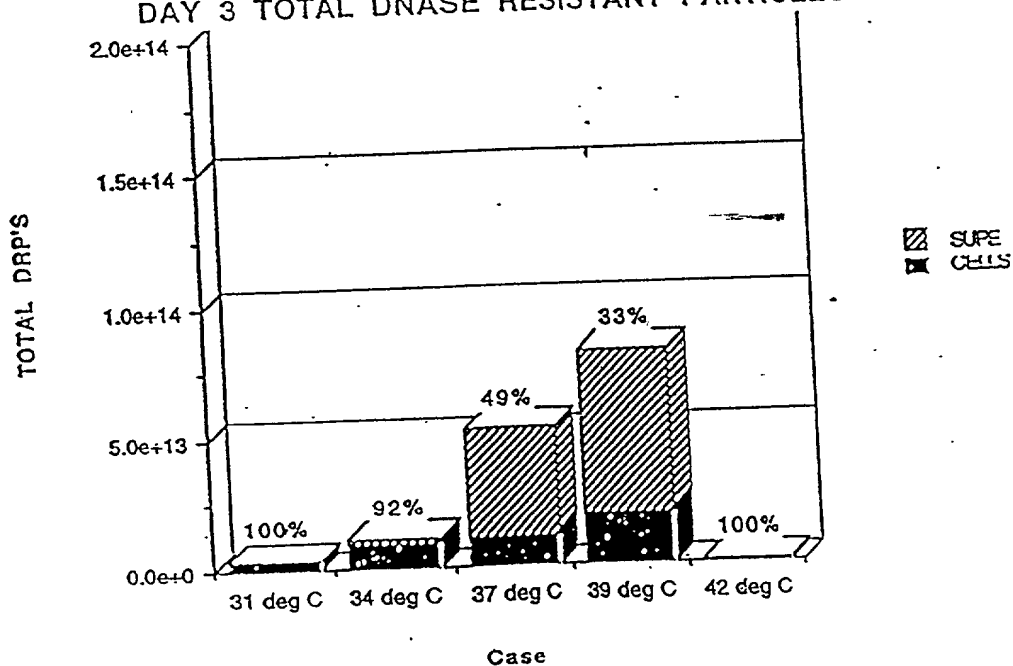


Figure 21

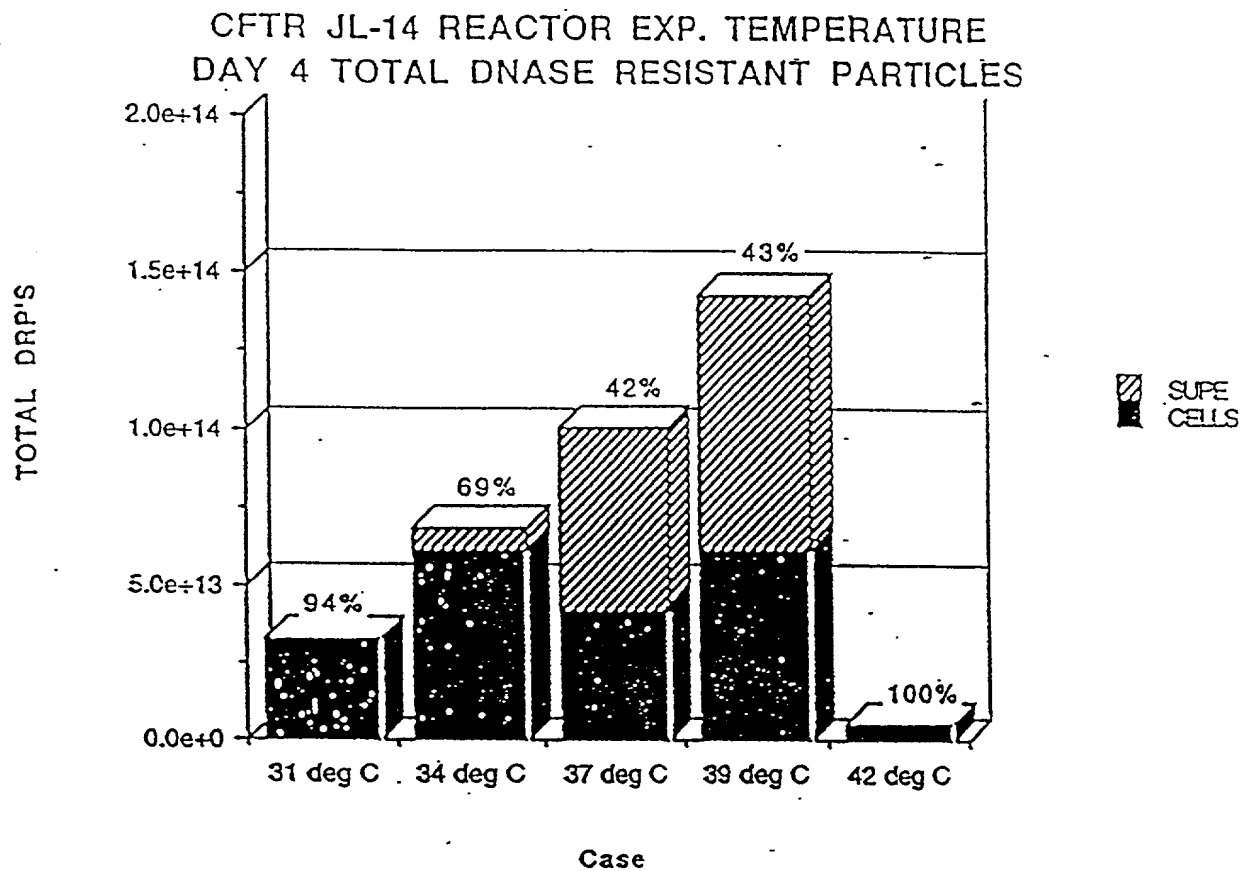


Figure 21C

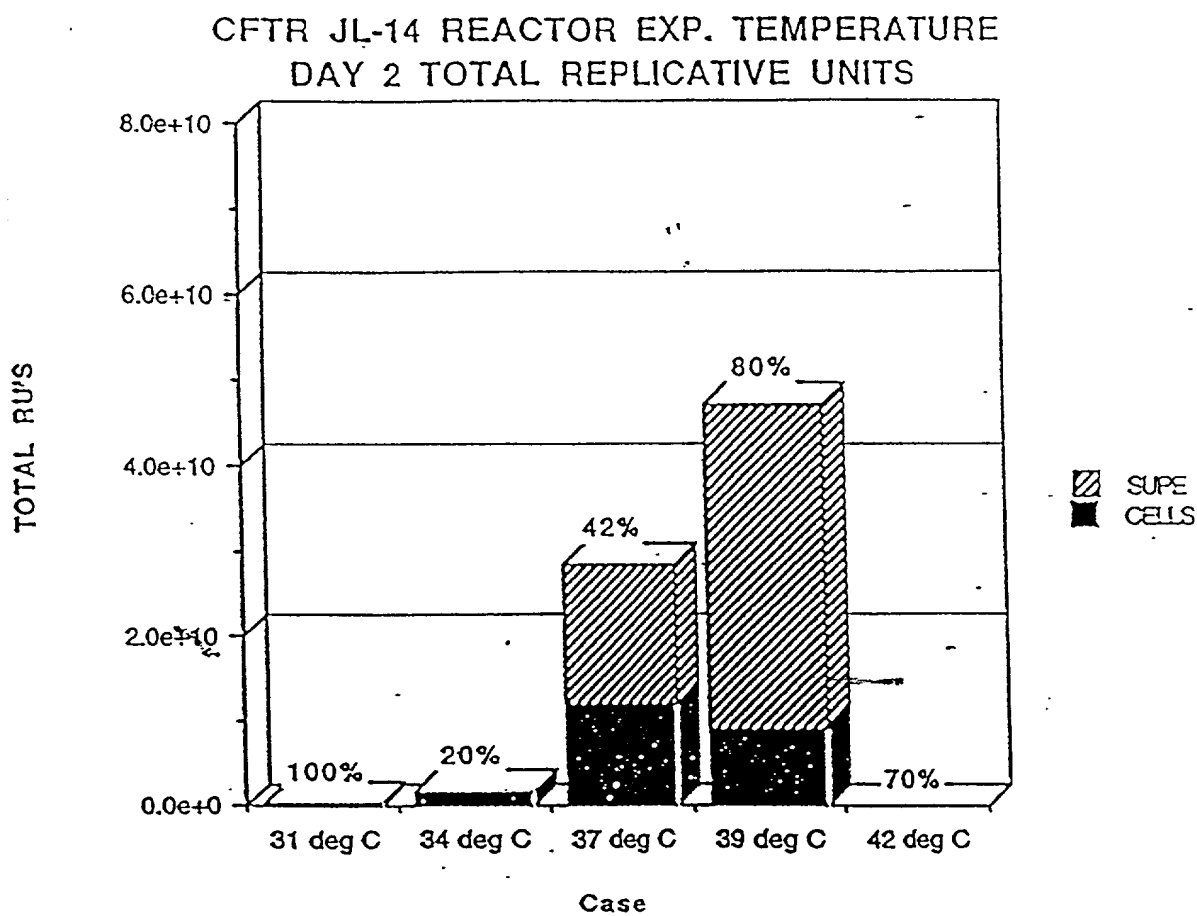
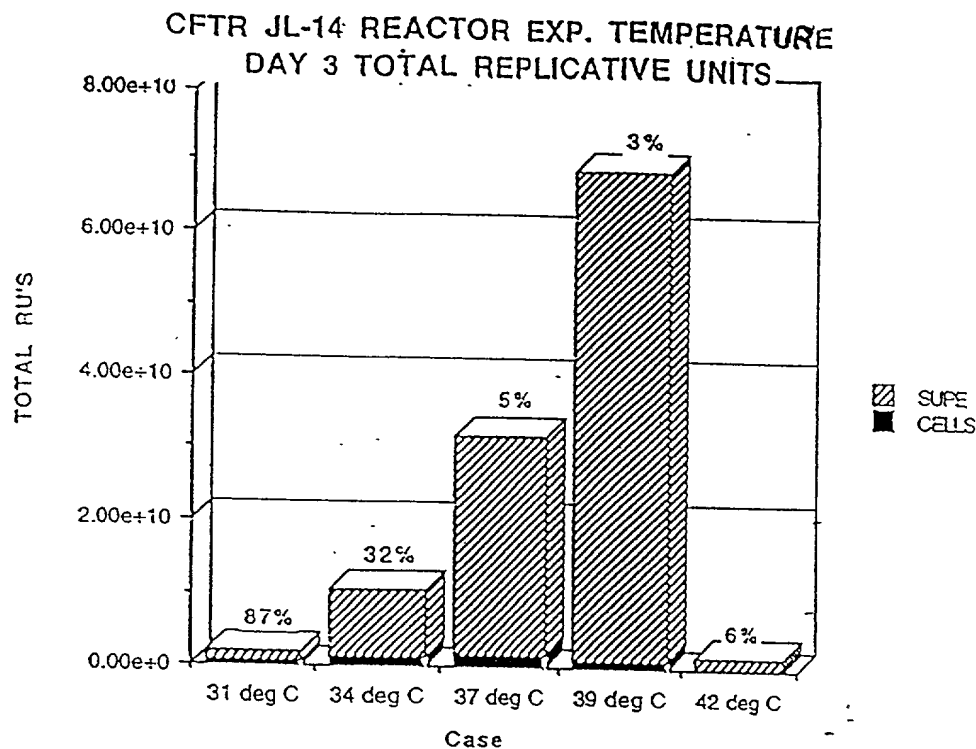
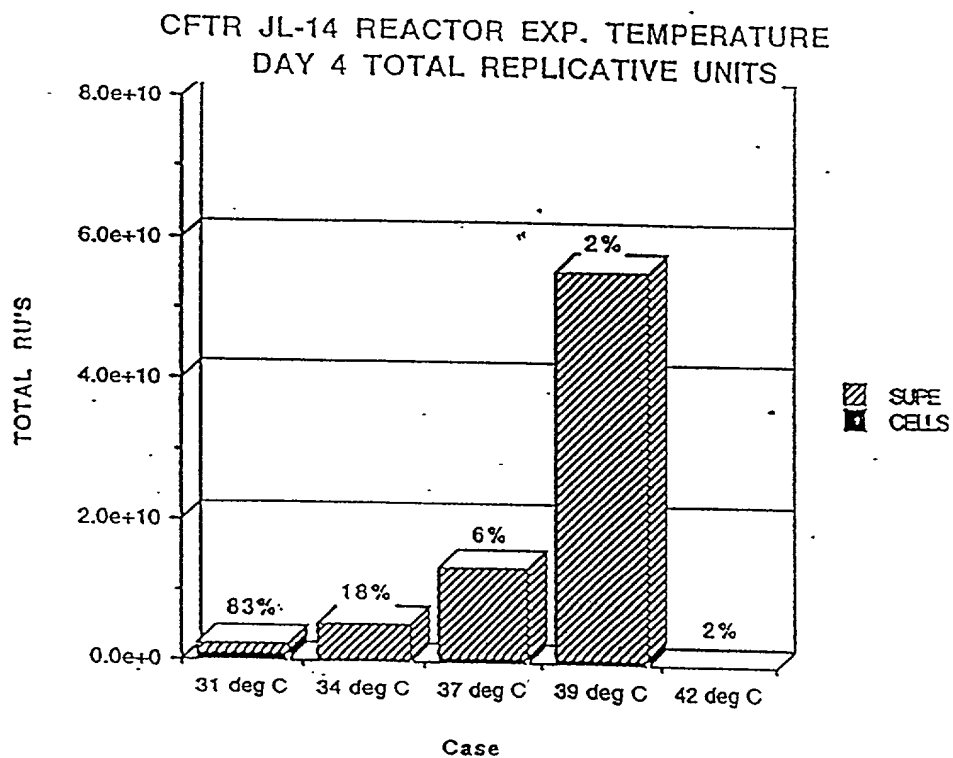


Figure 22A

B



C



Figures 22B and 22C

CFTR JL-14 Feed Experiment II
Total DRP's - Day 3 Supe

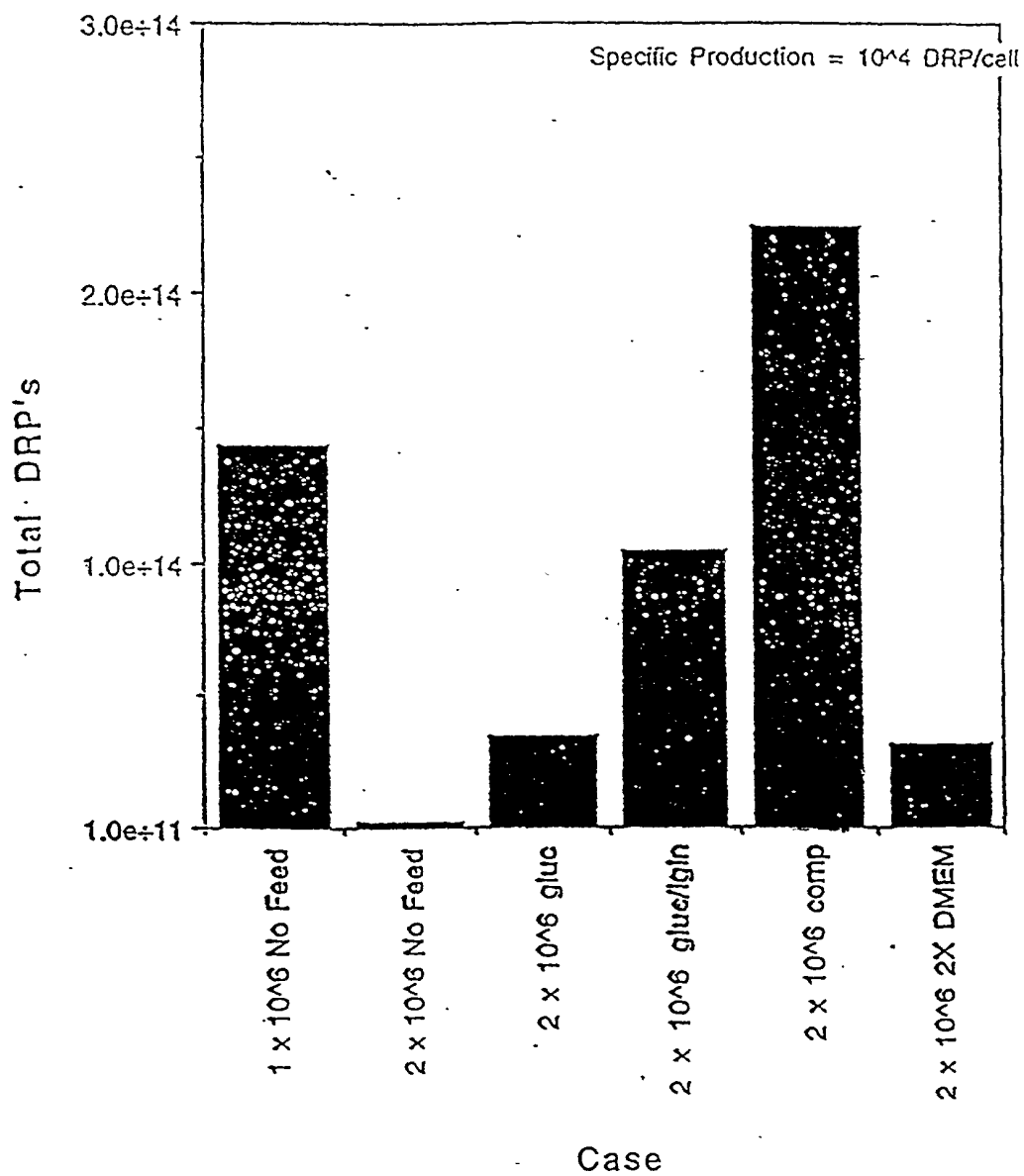


Figure 23

CFTR JL-14 Feed Experiment II
Total RU's - Day 3 Supe

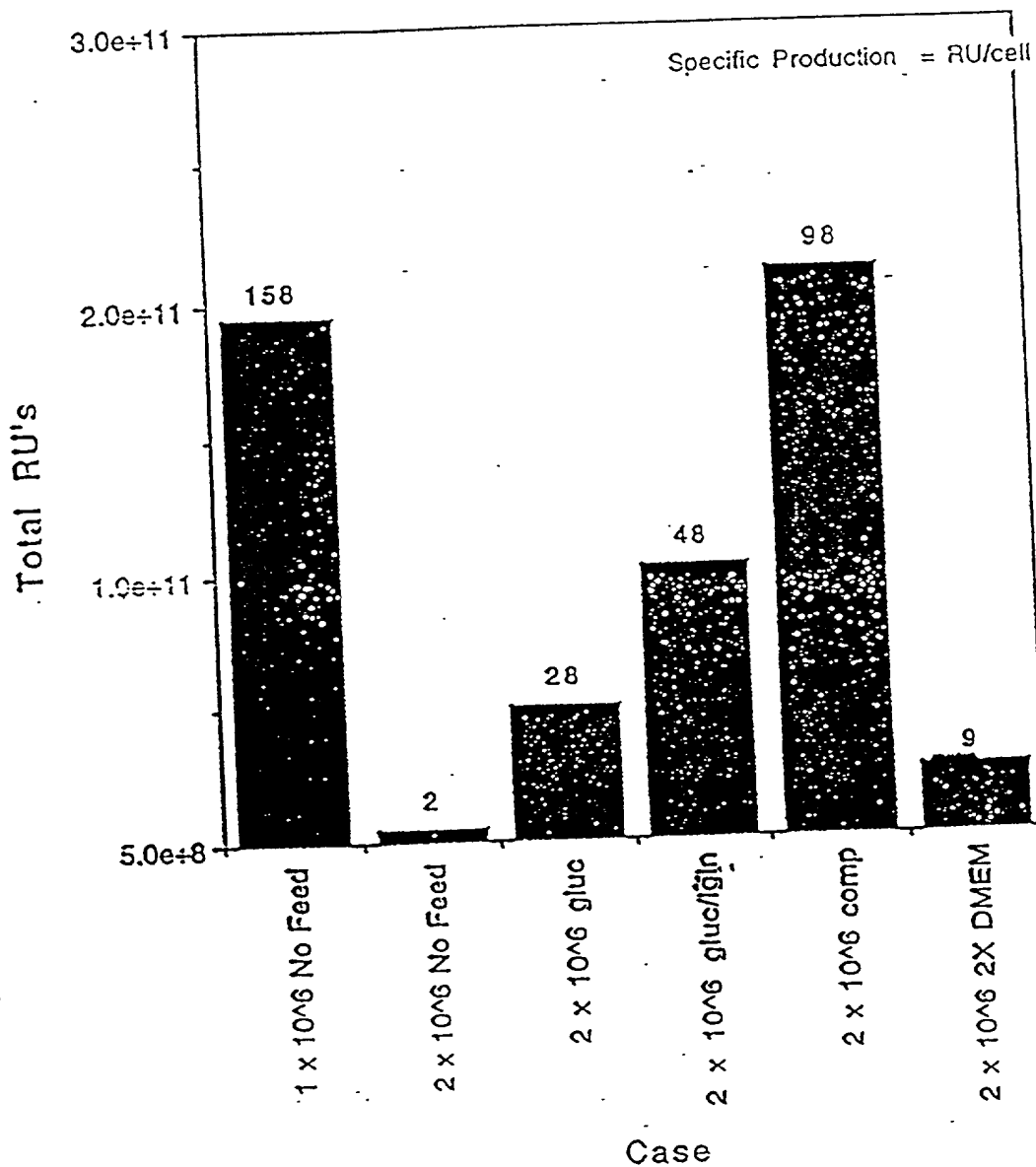


Figure 24

CFTR JL-14 Feed Experiment II
P/I ratio - Day 3 Supe

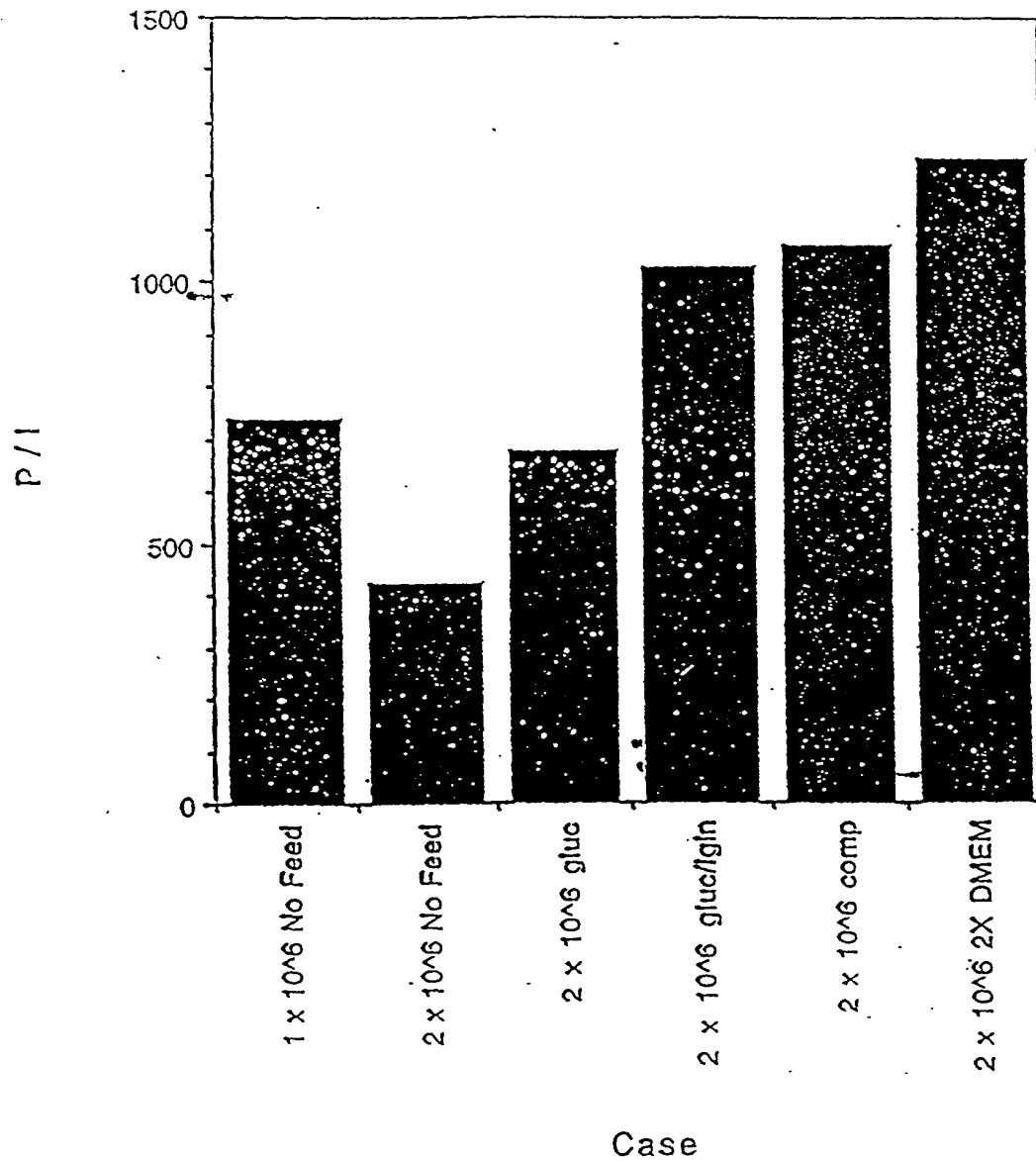


Figure 25

Lactalbumin Hydrolysate w/Earle's Salts (ELH)		
Base Cat No.	11250	11800
	1X Liquid	Powder
Component	mg/L	mg/L
INORGANIC SALTS:		
CaCl ₂ (anhyd.)	200.00	200.00
KCl	400.00	400.00
MgSO ₄ (anhyd.)	97.67	97.70
NaCl	6800.00	6800.00
NaHCO ₃	2200.00	-
NaH ₂ PO ₄ • H ₂ O	140.00	140.00
OTHER COMPONENTS:		
D-Glucose	1000.00	1000.00
Lactalbumin Hydrolysate	6500.00	5000.00
Phenol Red	10.00	10.00

MEM Amino Acids Solutions ²		
Base Cat No.	11136	21135
Component	50X Liquid	50X Liquid
AMINO ACIDS:		
	mg/L	mg/L
L-Arginine	6320.00	6320.00
L-Cystine	1200.00	1200.00
L-Glutamine	-	14600.00
L-Histidine-HCl-H ₂ O	2100.00	2100.00
L-Isoleucine	2625.00	2625.00
L-Luecine	2620.00	2620.00
L-Lysins HCl	3625.00	3625.00
L-Methionine	755.00	755.00
L-Phenylalanine	1650.00	1650.00
L-Threonine	2380.00	2380.00
L-Tryptophan	510.00	510.00
L-Tyrosine	1800.00	1800.00
L-Valine	2340.00	2340.00

References:

1. Eagle, H. (1955) Proc. Soc. Exp. Biol. Med. 89, 362.
2. Eagle, H. (1959) Science 130, 432

MEM Non-Essential Amino Acids Solution ²	
Base Cat No.	11140
	100X
	Liquid
Component	mg/L
AMINO ACIDS:	
L-Alanine	890.00
L-Asparagine	1500.00
L-Aspartic	1330.00
L-Glutamine	1470.00
Glycine	750.00
L-Proline	1150.00
L-Serine	1050.00

MEM Vitamin Solutions ²	
Base Cat No.	11120
	50X Liquid
Component	mg/L
NaCl	8500.00
D-Ca Pantothenate	100.00
Choline Chloride	100.00
Folic Acid	100.00
I-Inositol	200.00
Nicotinamide	100.00
Pyridoxal-HCl	100.00
Riboflavin	10.00
Thiamine HCl	100.00

Figure 26

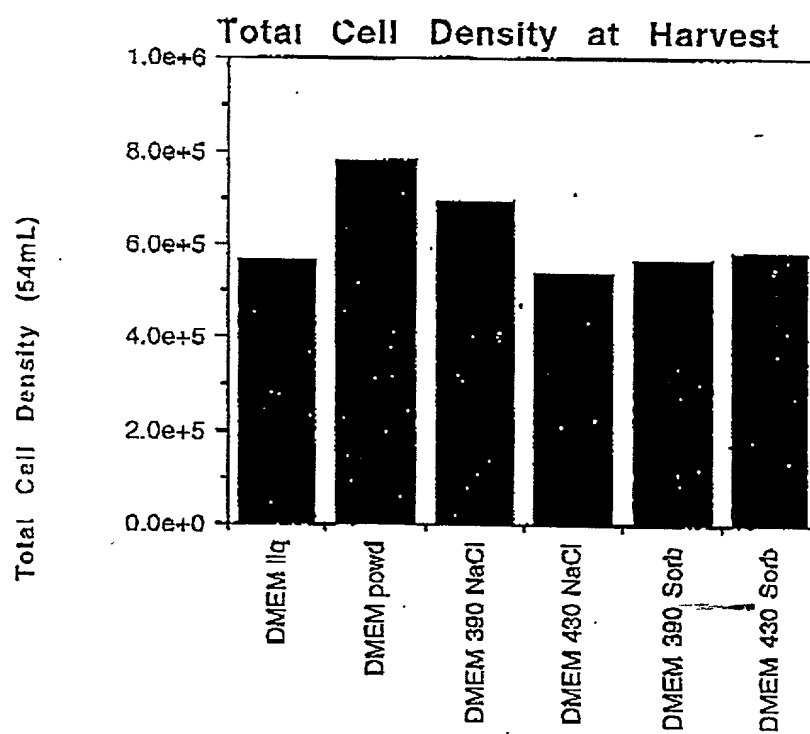


Figure 27

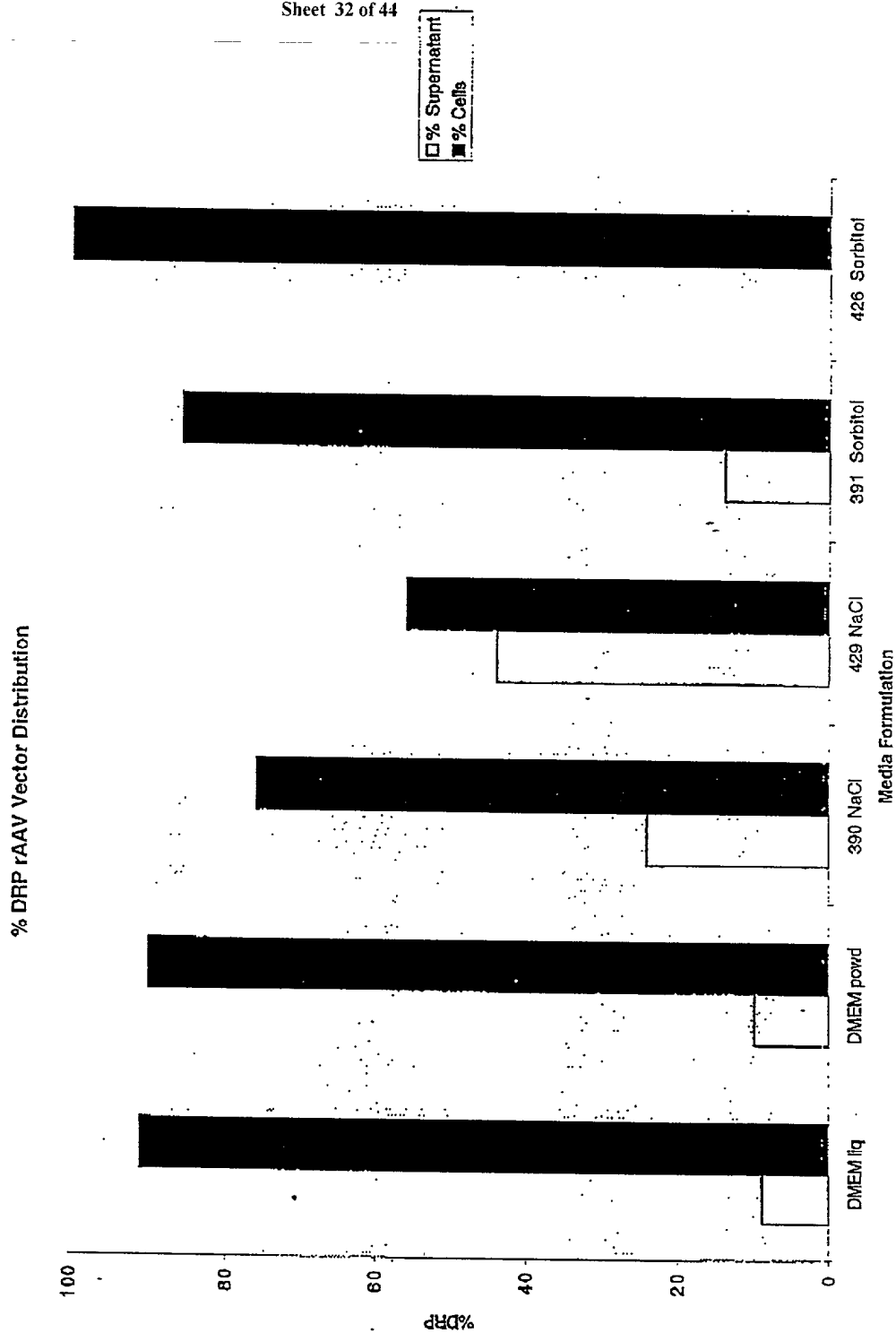


Figure 28

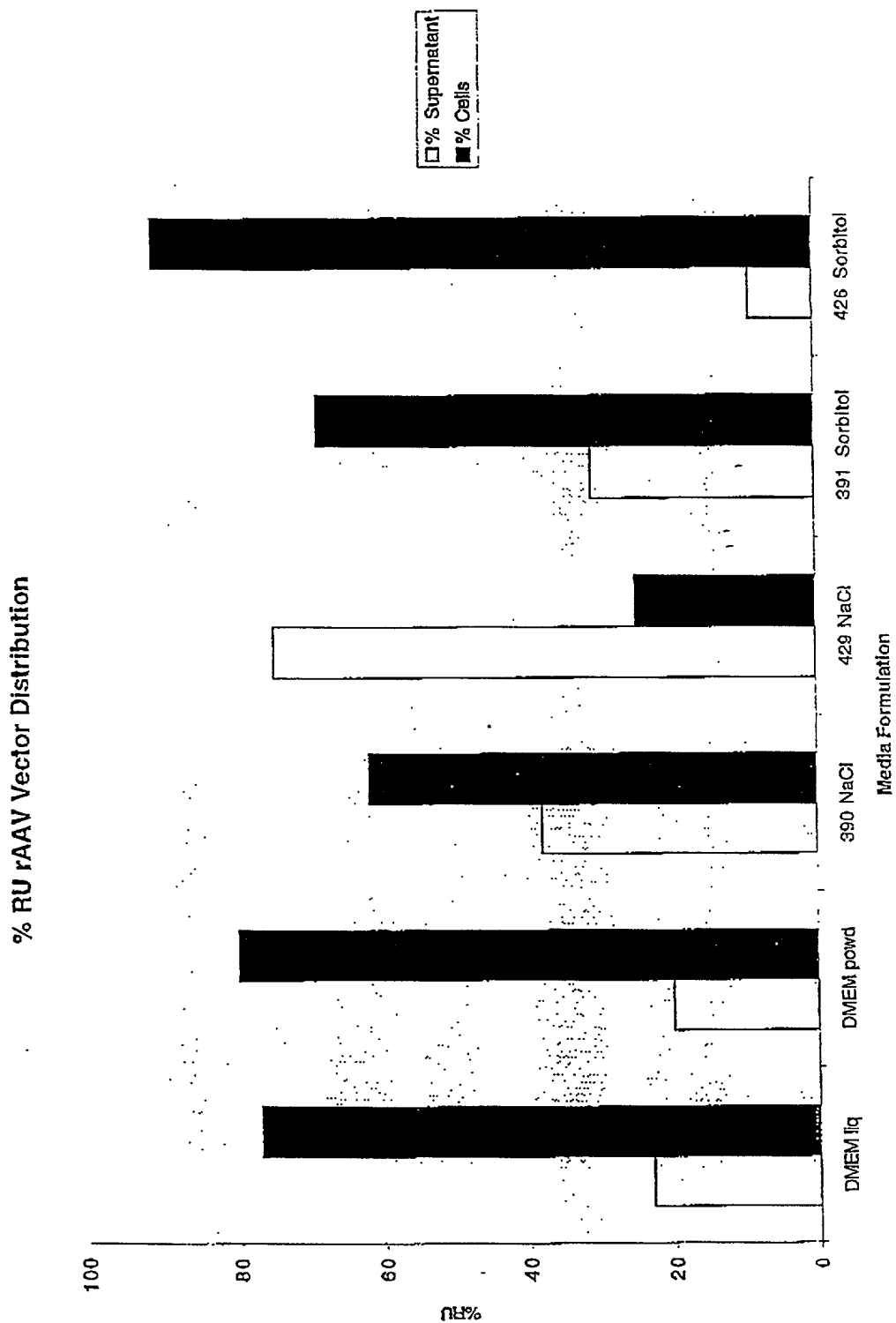


Figure 29

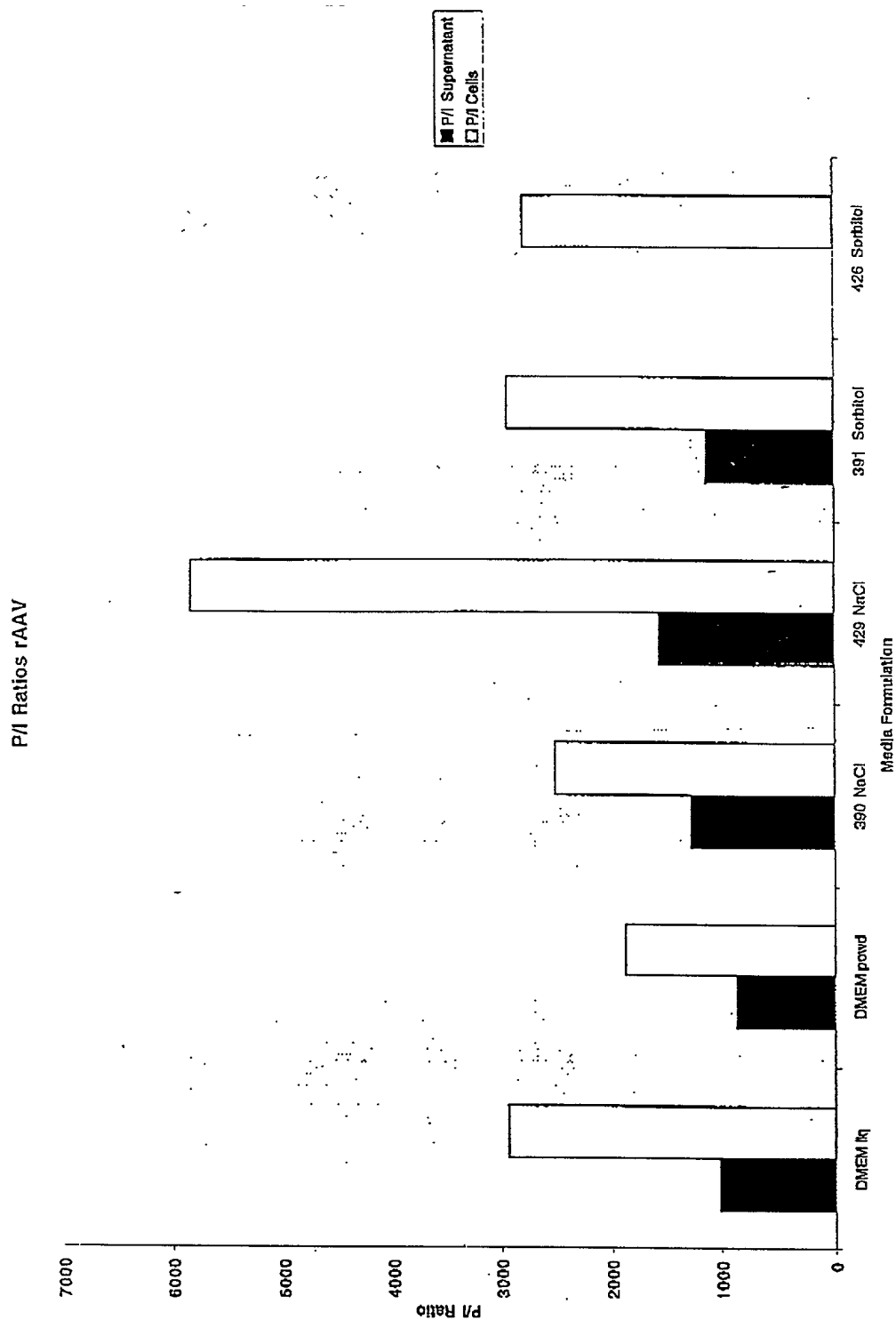


Figure 30

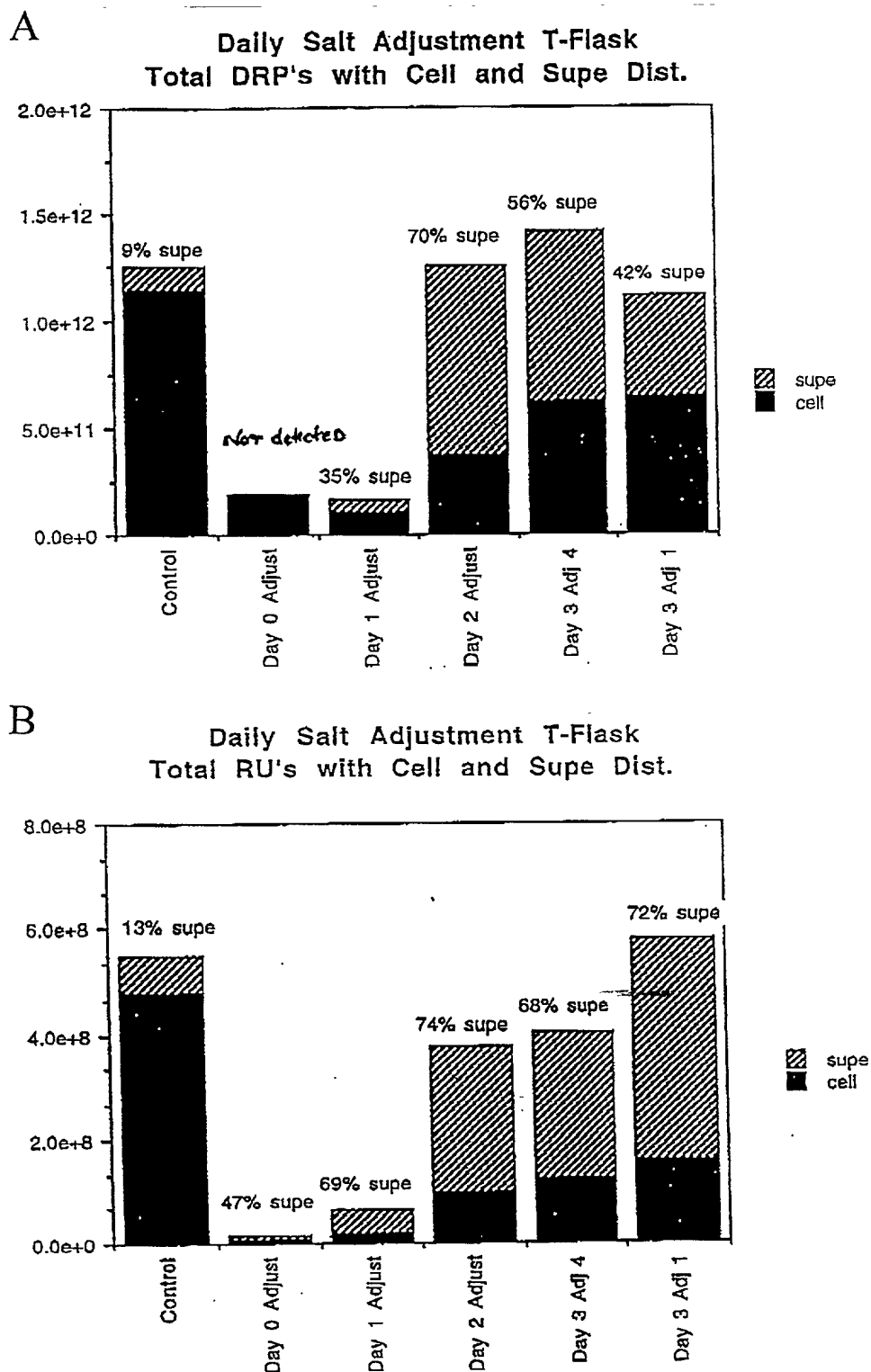


Figure 31

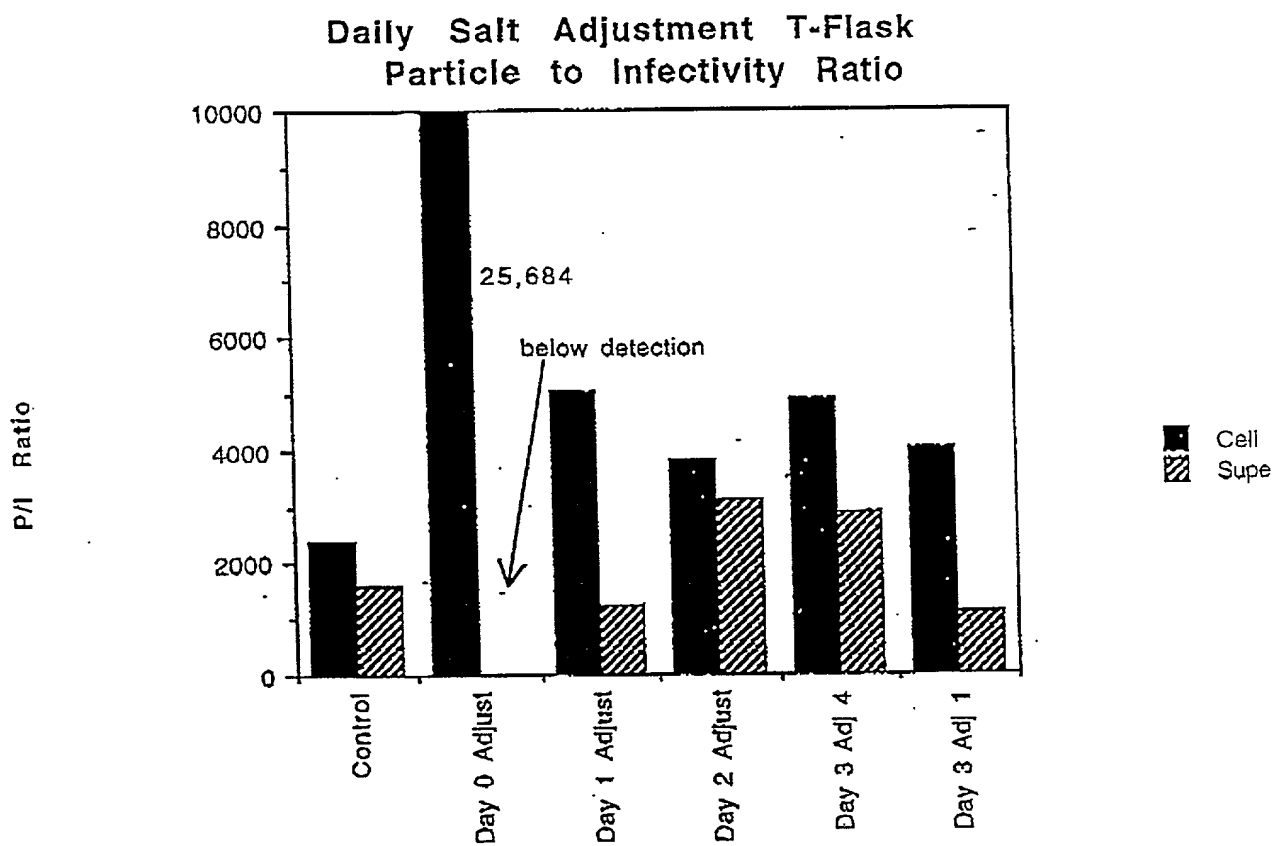


Figure 32

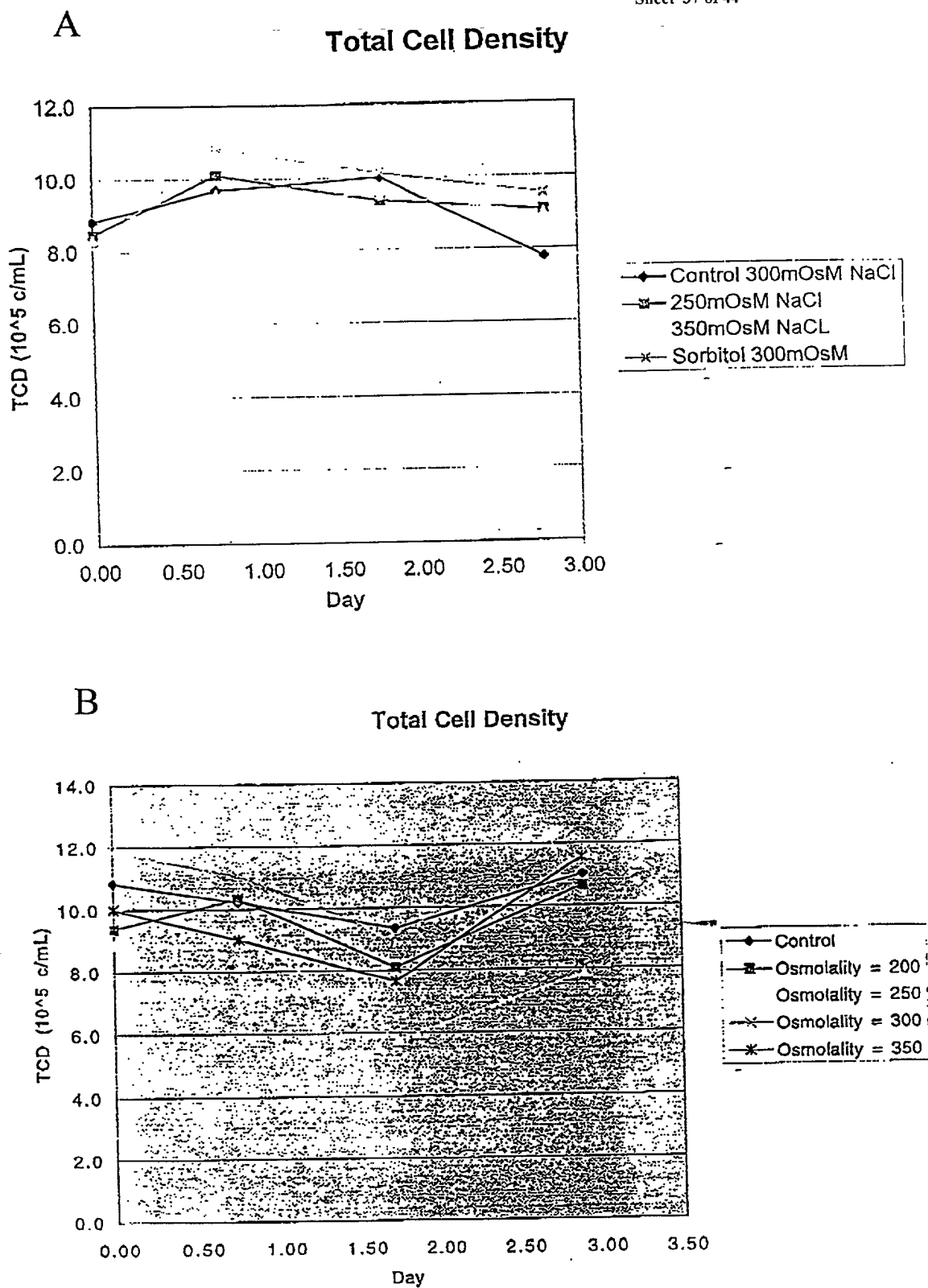


Figure 33

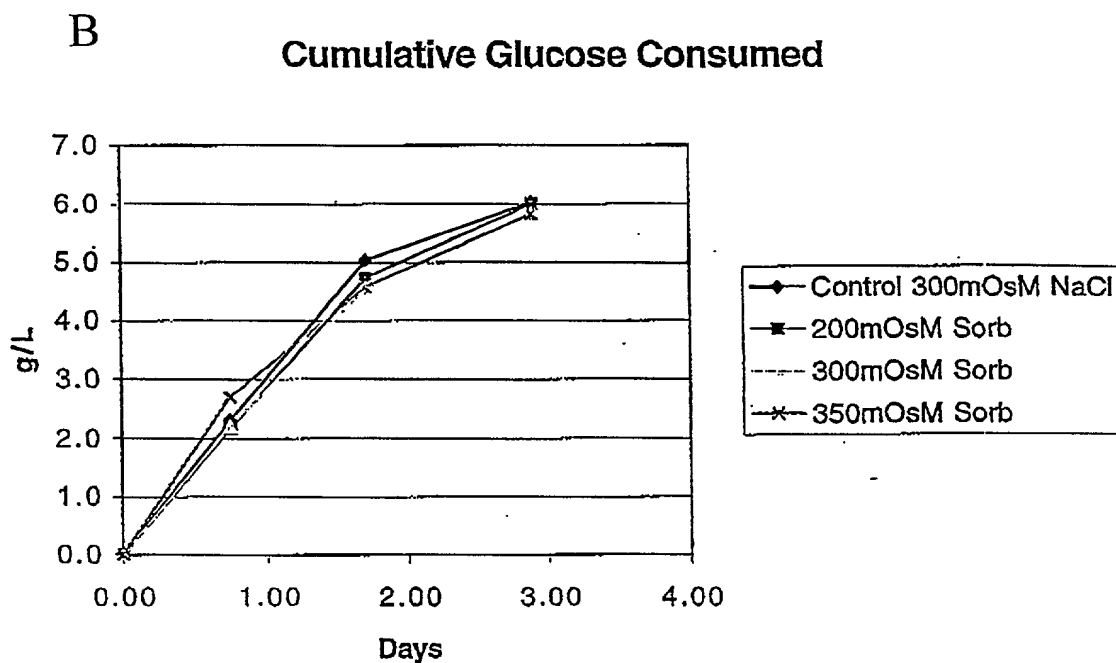
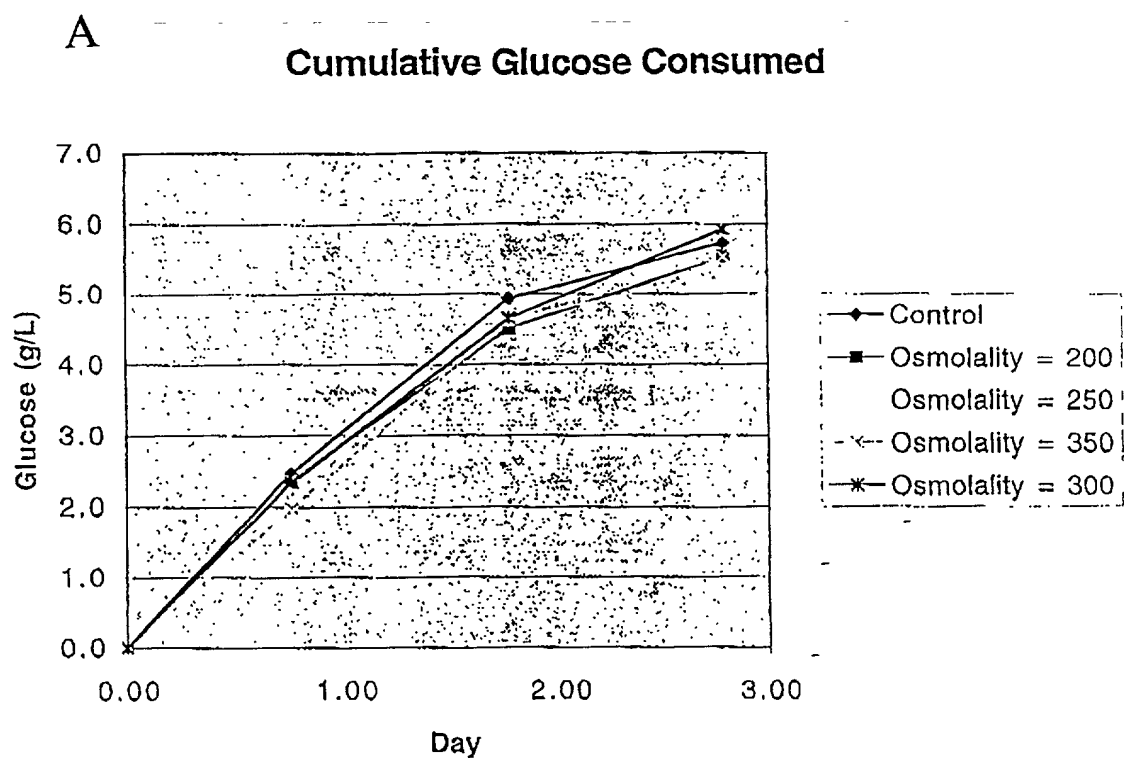
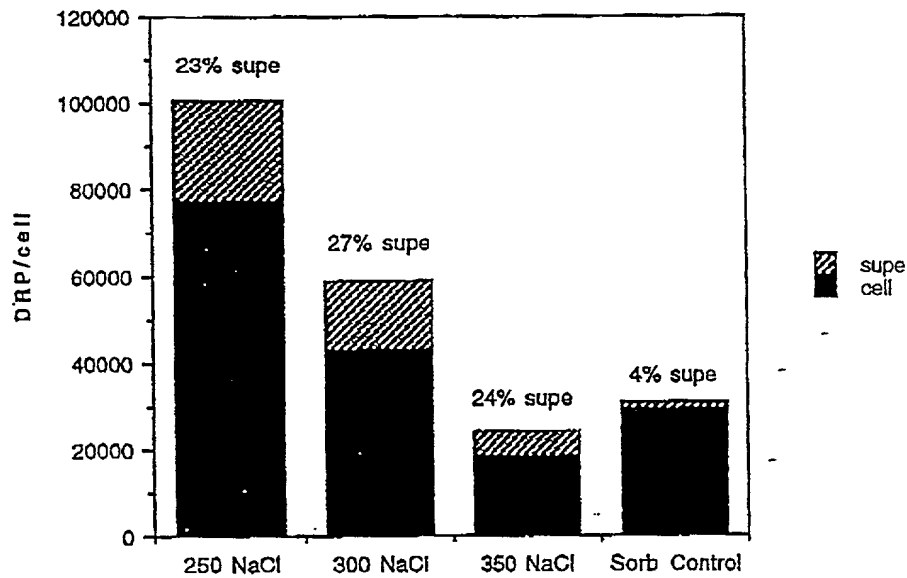


Figure 34

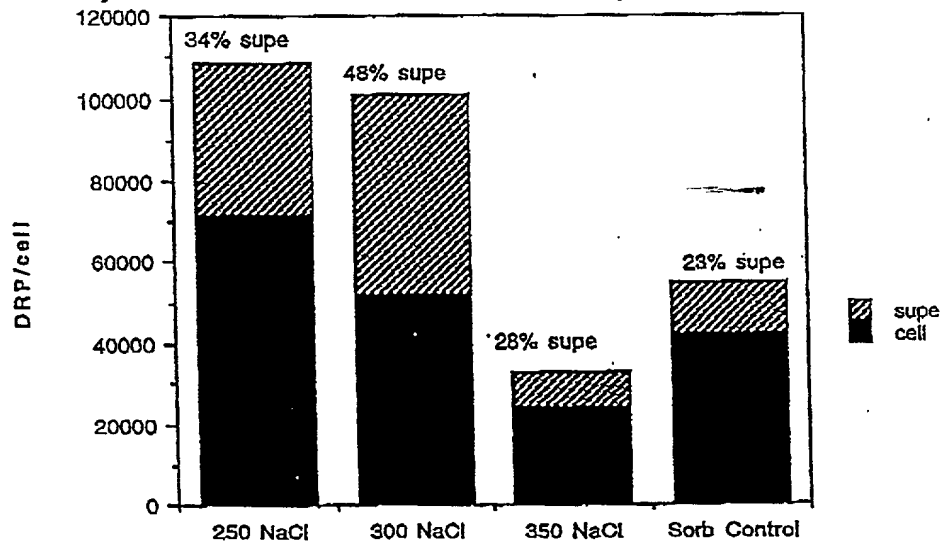
A

Bioreactor Osmolality Experiment (NaCl)
Day 2 DRP/cell with Cell and Supe Distribution



B

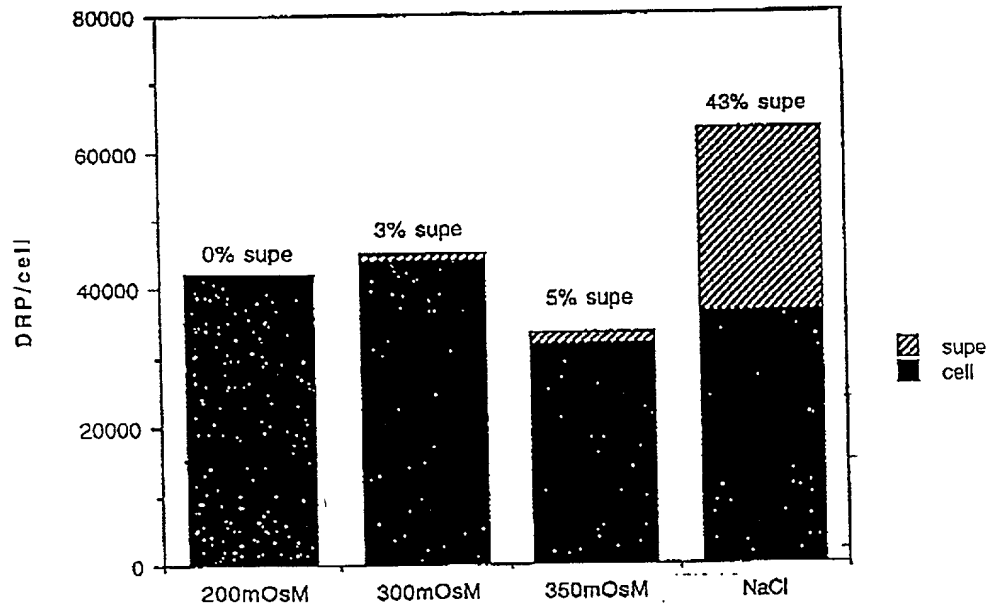
Bioreactor Osmolality Experiment (NaCl)
Day 3 DRP/cell with Cell and Supe Distribution



Figures 35A and 35B

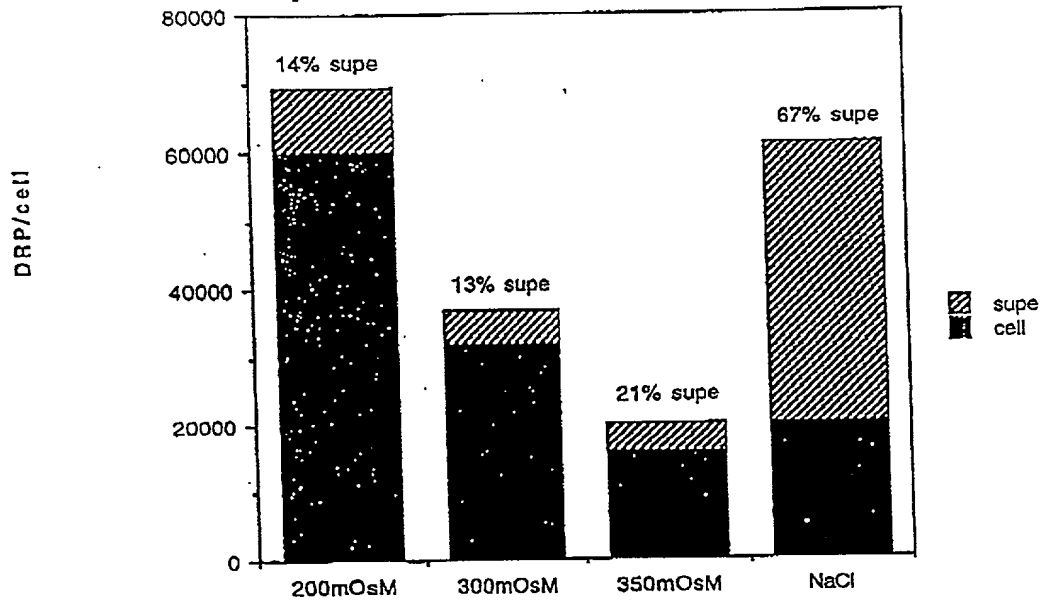
C

Bioreactor Osmolality Exp. (Sorbitol)
Day 2 DRP/cell Cell and Supe Distribution



D

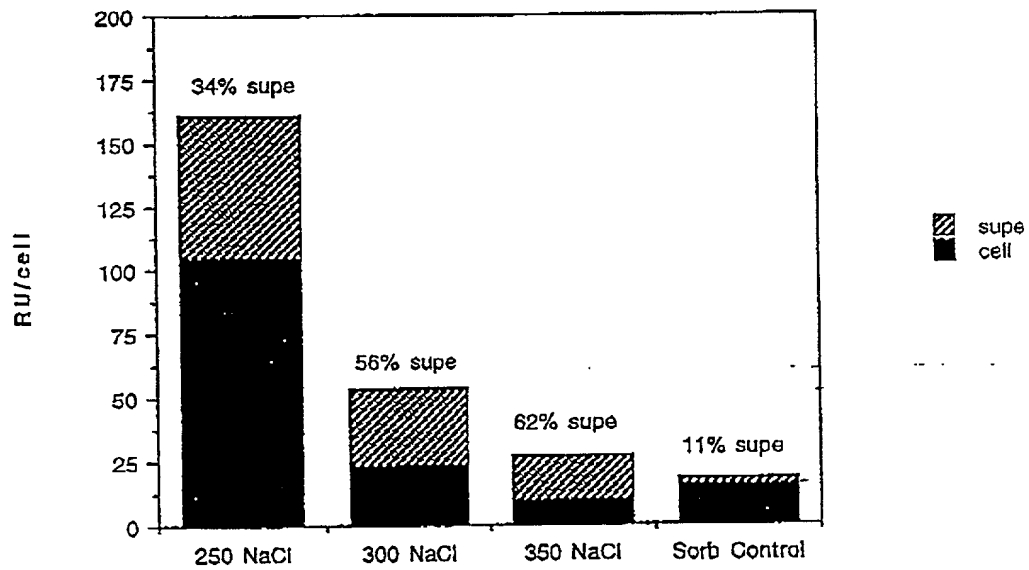
Bioreactor Osmolality Exp. (Sorbitol)
Day 3 DRP/cell Cell and Supe Distribution



Figures 35C and 35D

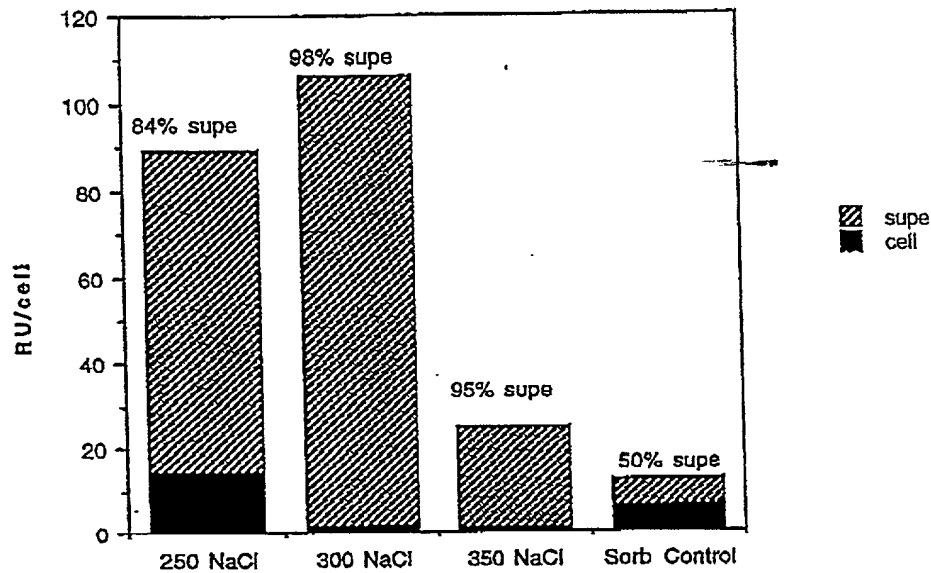
A

**Bioreactor Osmolality Experiment (NaCl)
 Day 2 RU/cell with Cell and Supe Distribution**



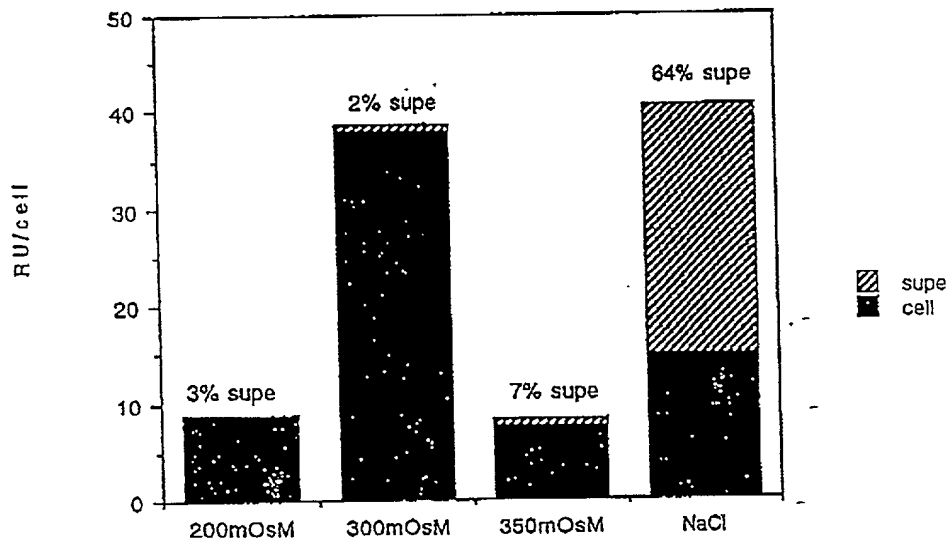
B

**Bioreactor Osmolality Experiment (NaCl)
 Day 3 RU/cell with Cell and Supe Distribution**

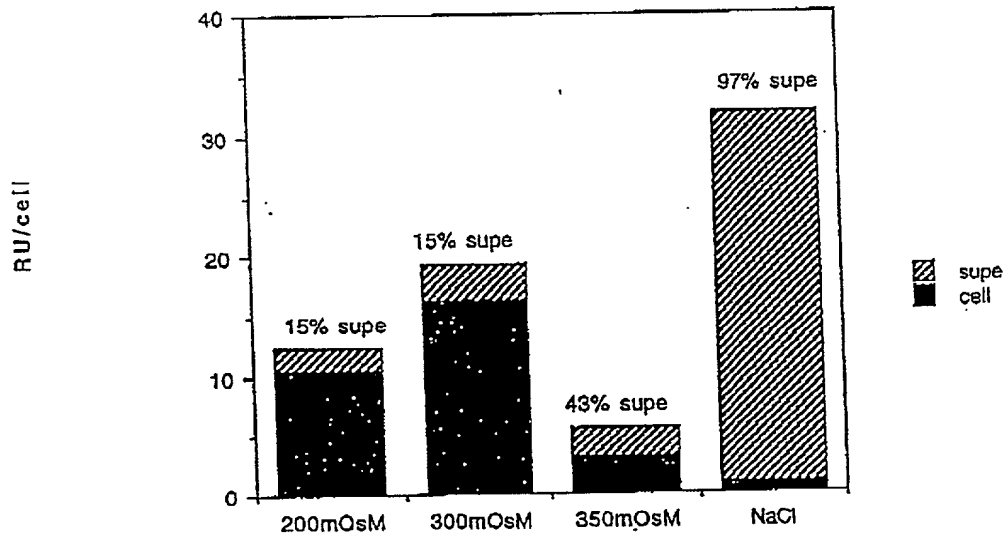


Figures 36A and 36B

C
Bioreactor Osmolality Exp. (Sorbitol)
Day 2 RU/cell with Cell and Supe Distribution

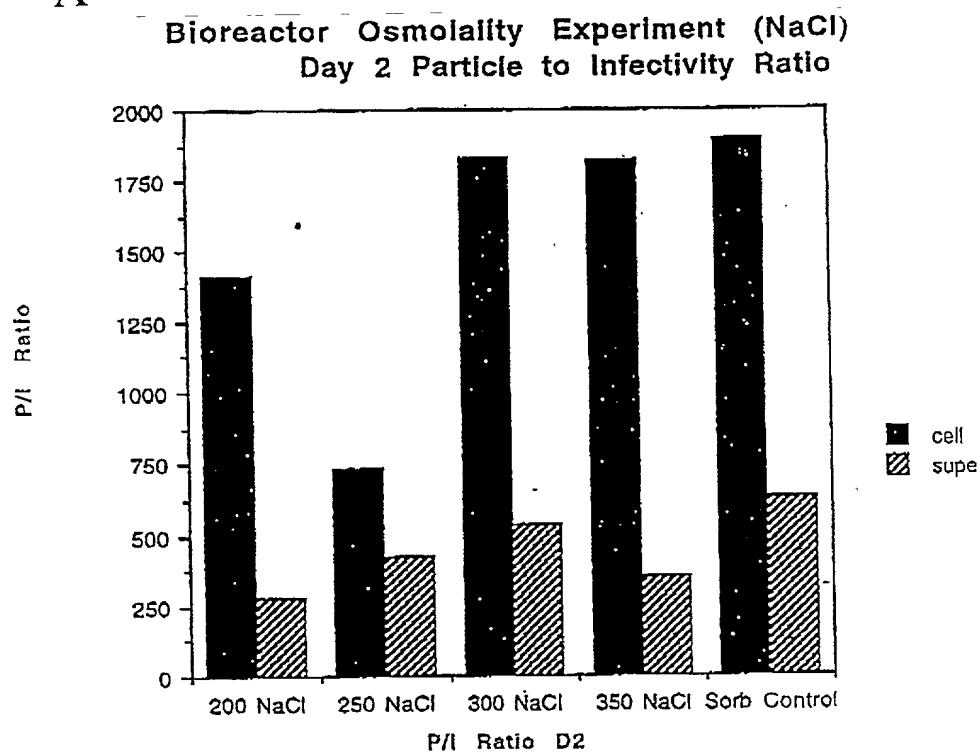


D
Bioreactor Osmolality Exp (Sorbitol)
Day 3 RU/cell with Cell and Supe Distribution

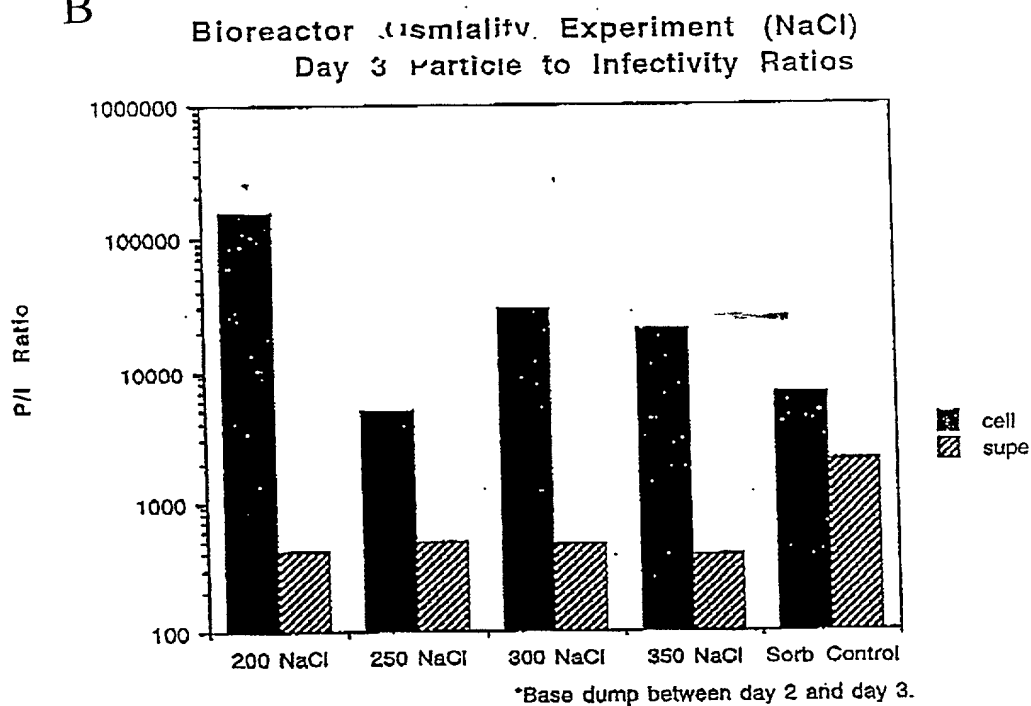


Figures 36C and 36D

A

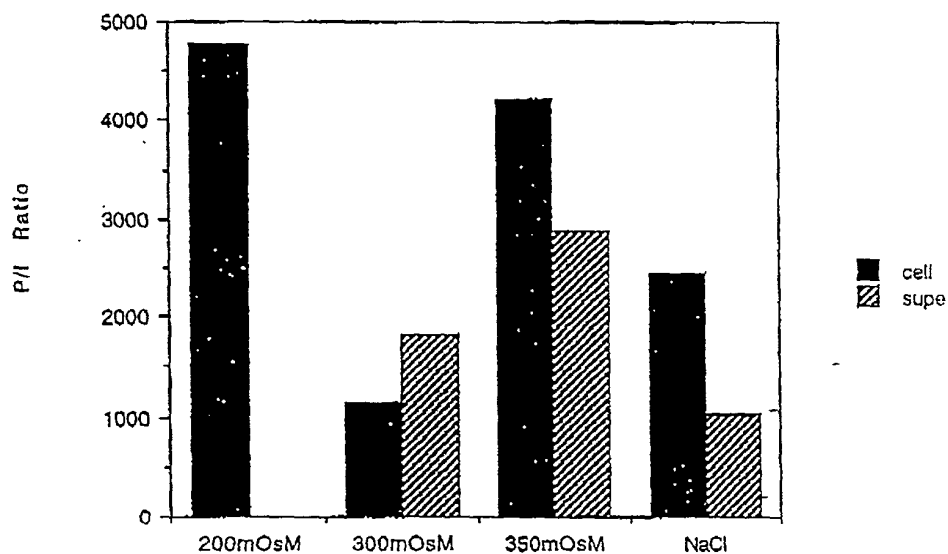


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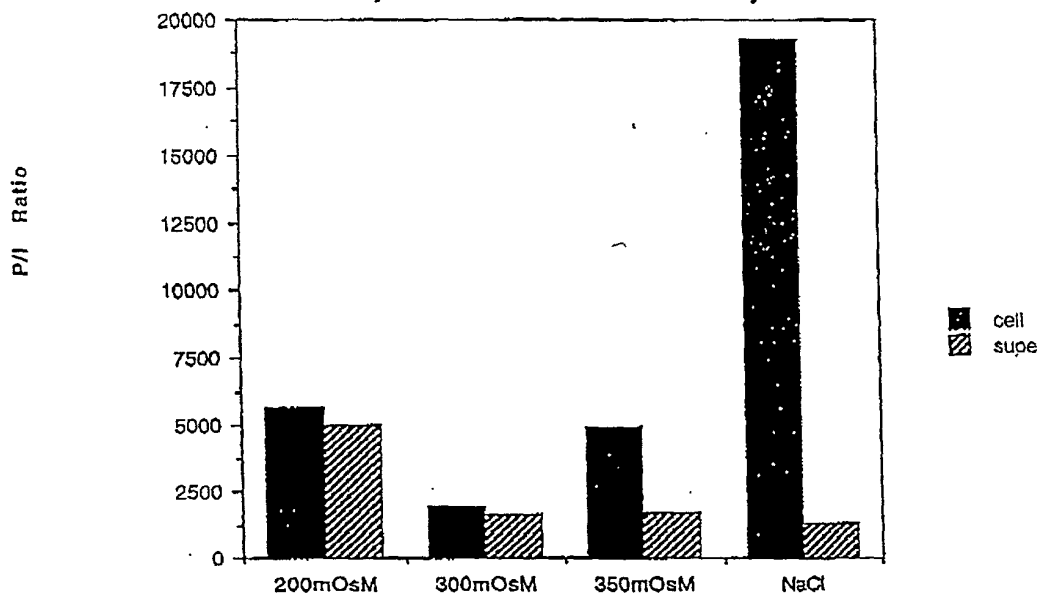


Figures 37A and 37B

C
 Bioreactor Osmolality Exp. (Sorbitol)
 Day 2 Particle to Infectivity Ratio



D
 Bioreactor Osmolality Exp. (Sorbitol)
 Day 3 Particle to Infectivity Ratio



Figures 37C and 37D